



iPOD MINI AUTOPSY P.32

Our surgeons pop it open and show you what's inside.



VAN HELSING: MADE ON YOUR MAC P.38

How digital artists used everyday Macs to create the blockbuster film.

94
JUN
2004

MacAddict

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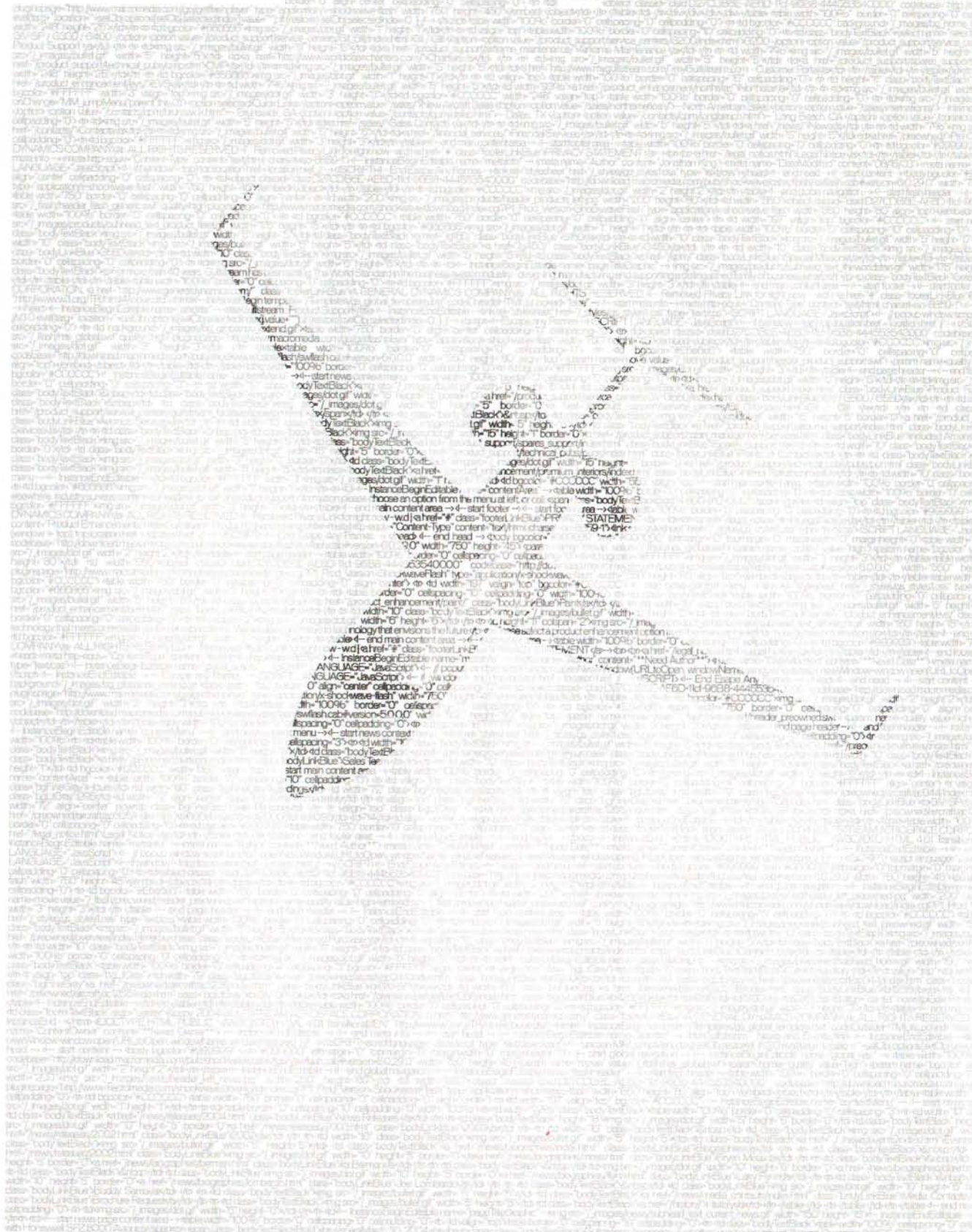
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79 *Power* Tips

features

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Become the Mac superstar you're destined to be—equip yourself with our tips on everything from Mac OS X to upgrades, iLife to Google.
by **Todd Stauffer**



32 iPod mini Autopsy

Step inside the *MacAddict* operating room and discover the gory details of what lies beneath the mini's anodized aluminum exterior. by **Niko Coucouvanis**

38 *Van Helsing*: Monsters, Magic, and Macs

ILM's digital wizards are at it again, this time using mainstream Mac software to create monster effects in this summer's blockbuster, *Van Helsing*. by **Kris Fong**



how to

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Use your iMac's speakers with your G5. Hook up your guitar to GarageBand. Stabilize iPhoto sharing, duplicate a DVD, and learn the exact color of your desktop pattern.

66 Build Your Own Supercomputer Cluster

You don't need to be a IT guru at Virginia Tech to build a supercomputer. *Anyone* can create a mega-computing monster from two or more Macs running Jaguar or Panther. by **Niko Coucouvanis**

68 Make Your Own Apple Loops

It's hard to create a unique sound when you're using the same loops as thousands of other GarageBanders. Wanna be one of a kind? Make your own loops! by **Kris Fong**

70 Automate eBay Transactions with AppleScript

If you are an eBay sell-aholic or find yourself constantly buried in email exchanges with customers, it's time to put an end to the days of typing and sending routine messages. We show you how. by **Johnathon Williams**

MacAddict

every month

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Prepare to display your musical chops and win a boatload of killer gear.

12 Get Info

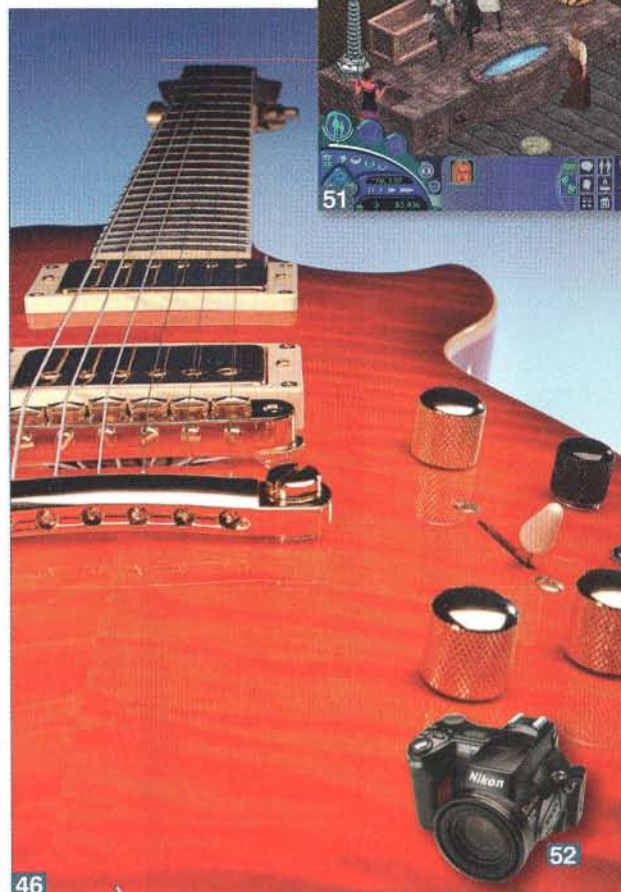
Apple is embroiled in the darndest lawsuits. We reveal a little more of Office 2004. Check out the coolest 32-inch LCD from Denmark, a stylish music-streaming device, and fashionable laptop bags.

45 Reviews

- 60 AutoScrubber *security utility*
- 54 Carrara 3D Basics *entry-level 3D software*
- 52 Coolpix 8700 *8-megapixel camera*
- 51 Gmini 220 *photo-storing MP3 player*
- 60 HomePod *wireless MP3 music streamer*
- 46 iGuitar2.13 *MIDI-capable guitar*
- 50 i-Trigue L3450 *powered speakers and subwoofer*
- 58 Learn to Play Keyboard Bundle *MIDI keyboard with instructional CD*
- 55 Mercury Extreme *processor upgrade G4/1.467-1.5GHz*
- 60 Mini SportSuit Safari *iPod mini case*
- 50 MX5021 *powered speakers and subwoofer*
- 53 NoteBook 1.2 *digital diary*
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- 47 Perfection 4870 Photo *transparency and opaque-media scanner*
- 54 pxi SmartScale 1.02 *image-scaling plug-in*
- 56 Reaktor 4 *audio synthesizer*
- 50 SoundSticks II *powered speakers and subwoofer*
- 51 The Sims Makin' Magic *expansion pack*
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- 48 Unreal Tournament 2004 *first-person shooter*
- 59 You Synchronize 2.01 *file-syncing utility*

62 The Hot List

We'd spend our own hard-earned money on these products.



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QUICK TIPS FROM THIS MONTH'S ISSUE

➔ FIGURE OUT RAM USAGE

Panther's Activity Monitor utility shows you a Page Ins/Outs virtual-memory statistic that provides a good gauge of whether you need more RAM.

From "79 Power Tips," p18.

➔ GET OUT THE HAIR DRYER

The first step to breaking open the iPod mini is to aim a stream of hot air from a hair dryer at the top and bottom



of the case. From "iPod mini Autopsy," p32.

➔ EAT WHEATIES

Unreal Tournament 2004 is bigger and better—and about a dozen times more addictive—than before. This is just a friendly reminder to get some sleep and eat occasionally.

From *Reviews*, p18.

➔ ENCODING DVD REGIONS

You need Apple's DVD Studio Pro, not iDVD, to create a DVD for play in a specific region.

From *Ask Us*, p65.



94 Log Out

94 Letters

Those candy dots are alive and well. Illustrator and FreeHand continue to duke it out. iPods may not be ideal for the DJ booth, but they work just fine near the North Pole.

95 Contest

Win WiebeTech's 120GB Fire800 Drive.

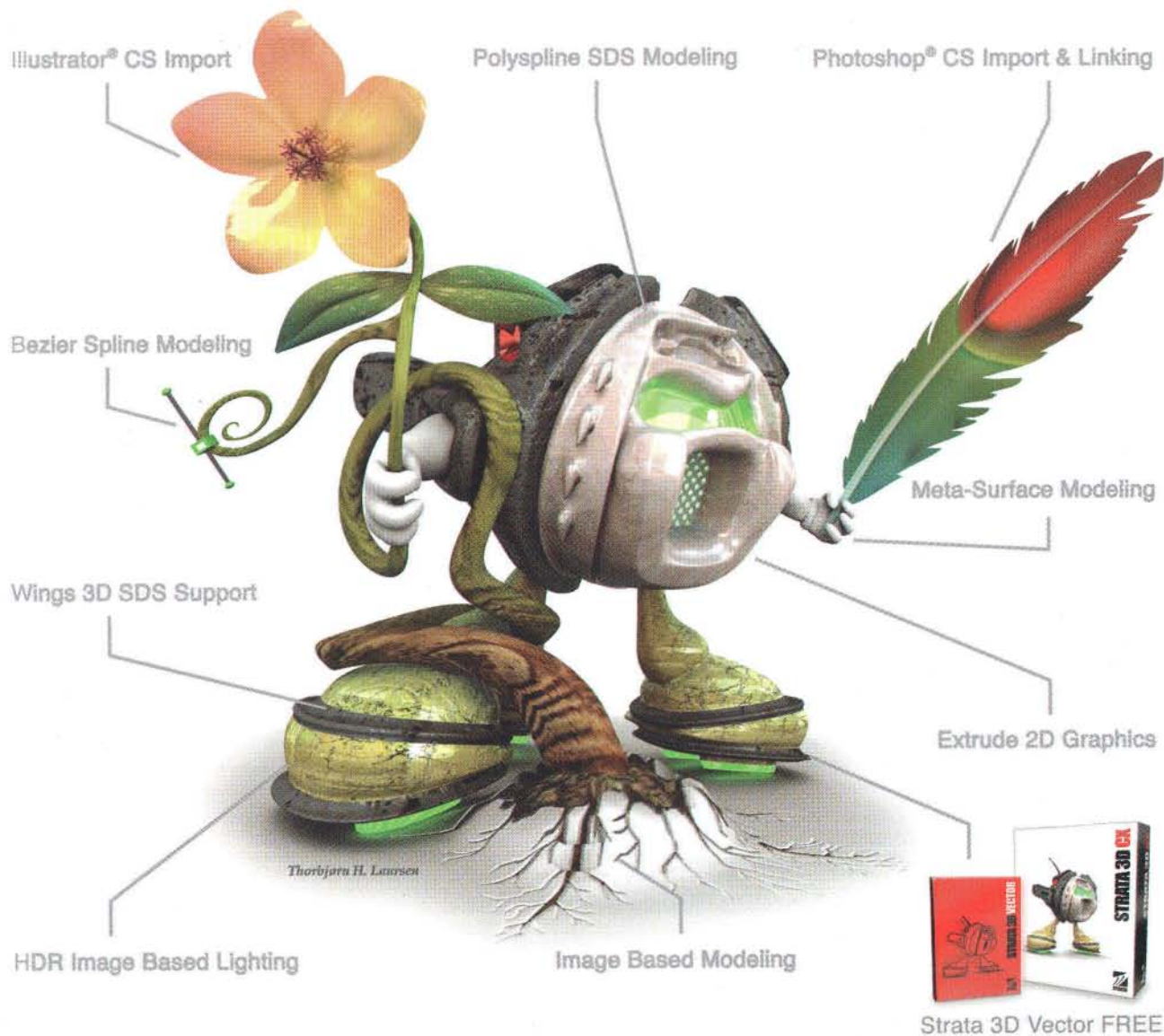
96 Shut Down

It's official: Mac addiction is a registered mental disorder.



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Unreal Tournament 2004 and Adobe After Effects 6 add up to 400MB of gladiatorial mayhem and pro-quality video effects. Sure, you could spend all afternoon downloading them from MacSoft and Adobe, but we think you'd rather start shooting and creating *right now*. So pop in the Disc, and go to it.

Unreal Tournament demo

Sorry, Halo fans, but Unreal Tournament 2004 is the best shooter. Ever.



Adobe After Effects 6 tryout

New to video? Try the effects processor all the pros swear by.



Reaktor X 4 demo

After you read our review on page 56, give this awesome synth a spin.



ontheDisc

AUDIO & MUSIC

Reaktor X 4 demo

FUN & GAMES

EarthBrowser 2.0.1
Nanosaur 2 demo
Unreal Tournament 2004 demo

GRAPHICS & MULTIMEDIA

After Effects 6.0 tryout
iView MediaPro 2.0.3 trial
Knoll Light Factory 2 demo
pxl SmartScale 1.0.2 trial
REFlex AE 2.32 demo
Stitcher 4.0 trial
Twixtor AE 3.2 demo

INTERFACE

Application Enhancer 1.4.1
FruitMenu 3.2.1
LaunchBar 3.3
ShapeShifter 1.2
WindowShade X 3.1

INTERNET & COMMUNICATION

iCal FTP 1.1
Interarchy 7.0.1

PRODUCTIVITY

NoteBook 1.2 demo
NoteTaker 2003 1.8 demo

UTILITIES

DiskTracker (Classic) 2.3
DiskTracker (OS X) 2.3

PRODUCTIVITY

Doublet Scan 10.1.4
iPhoto Diet 2.1.6
MacJanitor 1.2.1
NoteTaker Viewer 1.8.4
Pacifist 1.6.3
Snapz Pro X 2
Xnet 1.4.8

Staff Video: How Macs Created Van Helsing

Find out how everyday Macs and everyday software created the monsters and magic in the blockbuster fantasy film, *Van Helsing*.



UPGRADE

If you don't receive the Disc with your copy of *MacAddict*, you might want to consider upgrading. Each monthly disc contains cool demos, useful shareware and freeware, and the inimitable MacAddict Staff Video. To get 12 issues of *MacAddict* that include this value-packed disc with your subscription (prorated if necessary) for just \$1 more per issue, call 888-771-6222—the operator will take care of everything.

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EXECUTIVE EDITOR **Cathy Lu**
SENIOR EDITORS **Narasu Rebbapragada (news)**, **Kris Fong**
ASSOCIATE EDITOR **Niko Coucouvanis (reviews)**
INTERNS **Noah Tsutsui**
EPONYMIST **Max**
CONTRIBUTING EDITORS **David Biedny**, **Joseph O. Holmes**, **Helmut Kobler**, **Ian Sammis**, **Deborah Shadovitz**, **Andrew Tokuda**, **Buz Zoller**, and **demos**

ART

ART DIRECTOR **Mark Rosenthal**
ASSISTANT ART DIRECTOR **Peter Marshutz**
PHOTOGRAPHER **Mark Madeo**
CONTRIBUTING PHOTOGRAPHER **Samantha Berg**

PRODUCTION

PRODUCTION DIRECTOR **Richard Lesovoy**
PRODUCTION COORDINATOR **Larry Briseno**

ADVERTISING

EASTERN ADVERTISING DIRECTOR **Bernie Langan**, 212-768-2966 x4001
EASTERN ADVERTISING MANAGER **Anthony Danzi**, 646-723-5453
WESTERN ADVERTISING DIRECTOR **Dave Lynn**, 949-360-4443
WESTERN ADVERTISING MANAGER **Stacey Levy**, 925-964-1205
NATIONAL ACCOUNT MANAGER **Nate Hunt**, 415-656-8536
SENIOR ACCOUNTS MANAGER, DIRECT SALES **Ana Epstein**, 415-656-8416
AD COORDINATOR **Jose Urrutia**, 415-656-8313
MARKETING MANAGER **Kathleen Reilly**

CIRCULATION

GROUP CIRCULATION DIRECTOR **Amy Leder**
NEWSSTAND MARKETING MANAGER **Mimi Hall**
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FUTURE NETWORK USA
150 North Hill Drive, Brisbane, CA 94005
www.futurenetworkusa.com

PRESIDENT **Jonathan Simpson-Bint**
VICE PRESIDENT/CFO **Tom Valentino**
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VICE PRESIDENT/CIRCULATION **Holly Klingel**
PUBLISHING DIRECTOR (GAMES) **Simon Whitcombe**
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NON-EXECUTIVE CHAIRMAN **Roger Parry**
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MA/MW 6/04

Stardom, Anyone?



When presented to creative people, good ideas have a habit of becoming better ones. Case in point: Last month, Narasu and I came up with the idea of turning the monthly contest that she conducts (see page 95) into a competition to see which of you could come up with the best GarageBand tune. When we floated that idea at a staff meeting, some editors objected to limiting the contest to GarageBand, since so many of you are creating music in so many other ways—using

Digidesign's Pro Tools, Native Instruments' Absynth, Steinberg's Cubase, or one of the many other musical tools available for the Mac, as well as using your Macs as recording and mixing tools for your keyboard, guitar, and vocal performances.

That seemed fair—but since we wanted all of you to have a chance at exhibiting your creative greatness, we decided to split the contest into two levels: GarageBand compositions and music created using any other means—hey, if you want to write a MIDI string quartet in Sibelius 3, who are we to stand in your way?

But who would judge the entries? First, we thought about doing it ourselves—after all, *MacAddict* is stocked with musical talent: Kris is an award-winning pro guitarist and keyboardist, I used to pay my rent with my trusty vintage Fender P-Bass, and contributing editors Andrew Tokuda and David Biedny have displayed their talents and expertise many times in these pages and on our monthly Disc. However, since

Showcase your talent and win a boatload of gear.

our original idea was quickly growing into Something Big, we contacted our fellow editors at *Guitar World* magazine (recently acquired by our parent company, Future Network USA), and asked their opinions.

And that's when the idea really took off. *Guitar World* decided to cosponsor the contest; its editor in chief, Brad Tolinski, got guitar god Joe Satriani to be the judge; and our marketing folks jumped on board, started beefing up the prize list and looking into throwing a big ol' party to showcase the winners. Our little idea had grown into a national event.

But it also caused us to miss our deadline—we had planned to announce the contest, outline the rules, and detail the aforementioned fabulous prizes this month, but we won't be ready until next. So start honing your GarageBand skills and perfecting your musical chops, 'cause next month we'll give you a chance to showcase your talent—and to win a boatload of killer gear.

Enjoy,

R.k

coming soon: july 2004

Here's what our editors are preparing for the next issue of *MacAddict*.

We're corralling a passel of top-quality equipment to assemble the most droolworthy **Dream Machines** you could ever imagine. We'll also demonstrate how you can take advantage of all the new tricks in **Microsoft Office 2004**. In our how-to section, we'll show you how to **edit like the pros** in Apple's Final Cut Express, **add DVD footage to iMovie projects**, and **turn your Mac into a karaoke machine**. Finally, our intrepid product reviewers are getting relational with **FileMaker Pro 7**, fighting Mordor orcs in **The Lord of the Rings: The Return of the King**, and lounging in the **most elaborate ergonomic contraption** we've ever seen.

STAFF RANTS

Q. What contest would you have a chance of winning?



Kris Fong MISS UNDERSTOOD

What contest would you have a chance of winning? I'd win the title for Worst Desk Posture if the Carpal Tunnel Institute of America ever gave out an award. I slouch so badly that our IT guys have thought I was sleeping.



Narasu Rebbapragada

ALEXEY PAJITNOV WANNABE

What contest would you have a chance of winning? A no-holds-barred, steel-cage-deathmatch Tetris showdown. Any takers?



Mark Rosenthal DR. SUB-ROSA-THAL

What contest would you have a chance of winning? A fruit-eating contest. I can really eat a lot of fruit. Say, upward of 25 oranges or so. The nice thing about a fruit-eating contest is that it's disgusting, but not too disgusting. But those people who eat 12 pounds of pork? They're disgusting.



Jenifer Morgan ACHOO MASTER

What contest would you have a chance of winning? I would win a Greatest Number of Consecutive Sneezes contest during allergy season, hands down.



Peter Marshutz TV ADDICT

What contest would you have a chance of winning? I'm a contender for the U.S. Channel Surfing with Satellite Remote Olympic Team. I currently surf at 45 channels per minute (cpm), but my personal goal is to reach 88 cpm and smash the world record.



Noah Tsutsui ACADEMIC BUTTERFLY

What contest would you have a chance of winning? Having attended the most colleges as an undergrad: University of San Francisco, California College of the Arts, City College of San Francisco, San Joaquin Delta College, and San Francisco State University. Next on the list: Yale! (Uh, yeah, riiiiight...)



Niko Coucouvanis AMATEUR OTOLARYNGOLOGIST

What contest would you have a chance of winning? I'm pretty sure I could stuff more M&Ms up my nose than any of these patsies I work with. Do people still have contests for that?



Cathy Lu SPACES TRADER

What contest would you have a chance of winning? I could definitely win a marathon-watching competition for home decorating shows. I'm sure I could last for at least a month—if only Rik would give me the time off.



Max SOBRIQUETOLOGIST

What contest would you have a chance of winning? I've got a lock on the who-can-remember-the-most-Mac-code-names contest. Remember Mr. T? Green Jade? Slice? Stingray? Blackbird? TNT? Cold Fusion? Spartacus? Trinity? Laguna? Hammerhead? Well, I do.

You listen to your iPod every day, Now your iPod can listen to you.

The creators of iTrip now introduce the **Griffin iTalk** iPod Voice Recorder. Plug iTalk into your iPod and record thoughts, ideas or meetings with its high quality built-in microphone.

Play back your voice memos or music through iTalk's built-in speaker. You can even connect a separate mic or your headphones into iTalk. So talk all you want, iPod will listen.



iTalk Voice Recorder for iPod

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- Turns iPod into a full function voice recorder
- Internal microphone and laptop quality speaker
- Connect external microphone or headphones
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iTrip FM Transmitter for iPod

\$35

- Play your iPod's music wirelessly in your car or through your stereo at home
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iMic USB External Sound Card

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iCurve PowerBook & iBook Stand

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- Creates room on the desktop for your favorite USB keyboard and mouse - wireless versions work great
- Keeps your notebook running cool (and loud fans off) with 360° airflow

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Holy litigation, Batman! Apple's most recent quarterly SEC filing (called a 10-Q) revealed that everyone's favorite company is involved in 16 legal battles ranging from the obscure to the downright juicy. Check out the highlights. (Apple declined to comment.)—NR

WE CAN'T WORK IT OUT

Apple Corps v. Apple Computer

THE CHARGE: In this longstanding suit, the Beatles' music company, Apple Corps, charges Apple Computer with breaking a 1991 agreement. The agreement, which reportedly cost Apple some \$24 million, states that Apple Corps would use the Apple brand solely for music and that Apple Computer would use the brand solely for computing.

Enter the digital music revolution and the iTunes Music Store. Apple Corps now says Apple Computer is crossing onto its turf, using the Apple brand to sell online music.

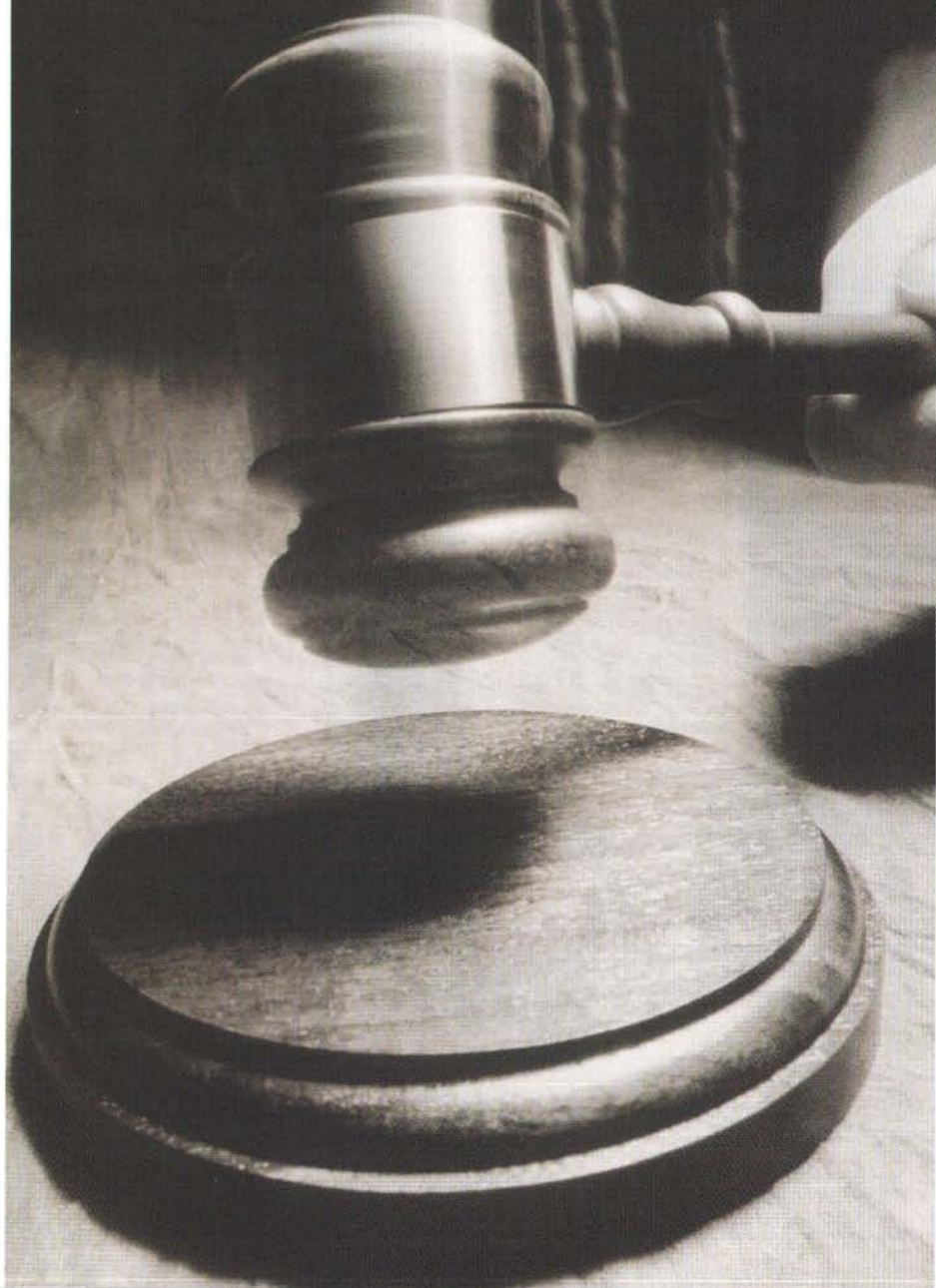
THE STATUS: The British High Court rejected a request from Apple to move the trial from London to California, where Apple is headquartered. (What a shock.) To further complicate the issue, the judge presiding in London admits to being an iPod fan. Apple Computer had better hope the judge's iPod battery doesn't conk out during the trial.



"Try to see it my way..."

LAW AND ORDER

Who's Suing Apple, and Why



HOW 'BOUT THEM APPLES?

Apple v. Apples

THE CHARGE: Apple is the grieved party in this trademark dispute with China's Guangdong Apples Industrial (www.apples.com.cn), which produces leather accessories and apparel bearing a logo similar but not identical to Apple Computer's. According to the *Christian Science Monitor*, China's trademark appraisal committee denied Apple Computer the right to use its own logo on Apple Computer-branded clothing because of the similarity (see below).

THE STATUS: Apple restated its case in front of a Beijing court in March—no word as to whether its lawyer had a cute little Apples clutch purse.



Apple can't use its logo (left) on apparel in China because it's too close to the logo used by a Chinese manufacturer (right).

WHY UPGRADE WHEN YOU CAN SUE?

Bancroft v. Apple Computer

THE CHARGE: This class-action suit, filed in January 2002, claims that Mac OS X doesn't work adequately on certain Power Mac G3s—particularly where Quartz Extreme, QuickTime, and DVD movie playback are concerned—and charges that this violates California's Consumer Legal Remedies Act.

THE STATUS: Apple settled the case earlier this year for an undisclosed amount—a truckload of brand-spankin'-new G5s?—and is currently administering the settlement.

STILL GOING...

Craft v., Chin v., Hughes v., Westley v., Keegan v. Apple Computer

THE CHARGE: There are currently five separate lawsuits surrounding the iPod's battery life. According to Apple's 10-Q report, the charges include "false advertising, fraudulent concealment and breach of warranty."

THE STATUS: Apple says it's "beginning its investigation of these

claims." (Beginning? Last year, Apple began offering \$59 extended warranties and \$99 replacement fees on iPod batteries.)

IS 8 MILE HIGH?

Eminem v. Apple Computer

THE CHARGE: How cute was that iPod TV ad in which a ten-year-old boy sang Eminem's "Lose Yourself" while rocking out on his iPod? Not very cute, it turns out. Apparently Marshall Bruce Mathers (aka Eminem) never signed off on it. CNN reports that Eminem's music publisher 8 Mile Style filed a copyright infringement suit in February stating that Eminem has never endorsed any commercial products and would probably need upward of \$10 million to do so.

THE STATUS: The suit says that Steve Jobs himself called up 8 Mile Style and asked the company to reconsider, but Eminem wouldn't talk.

RETAILER VERSUS RESELLER

MacTech v., Macadam v., Computer International v., Elite Computers and Software v., The Neighborhood Computer Store v. Apple Computer

THE CHARGE: Five current and former authorized Apple resellers filed suits claiming "breach of contract, fraud, negligent and intentional interference with economic relationship, negligent misrepresentation, trade libel, unfair competition and false advertising" by Apple retail stores—and no, they didn't include "lousy advice at the Genius bar." Third-party Apple-authorized resellers are supposed to be offered Apple hardware at the same wholesale price as Apple retail stores, thus keeping profit margins fair and competitive. According to Think Secret (www.thinksecret.com), however, hijacked invoices show that Apple retail stores are getting deep discounts, which also contribute to inflated reported profits.

THE STATUS: Third-party Apple resellers have been feeling some resentment ever since Apple debuted its first official retail store two years ago, so it will be interesting to see how this suit—still in the discovery phase—plays out.

NEW STUFF

DIGITAL VOICE RECORDER

Olympus DM-20

\$289.99, www.olympusamerica.com

Available: Now

The DM-20 claims to pack over 45 hours of voice or two hours of music (MP3 or WMA) onto 128MB of internal memory. The DM-20 charges via a USB dock connected to your Mac and offers up to 12 hours of recording time on rechargeable NiMH batteries.



Record a week's worth of voice on Olympus's DM-20.

iPOD FM TRANSMITTER

Sonnet PodFreq

\$99.95, www.sonnettech.com

Available: May 2004

Your dock-connected iPod snaps right into this FM transmitter, which finds an FM frequency for transmitting audio. The PodFreq transmits audio through the iPod's line-out port (within the Dock connector) rather than the headphone port; Sonnet says this improves sound quality. The FireWire and mini USB ports on the PodFreq let you charge the iPod without removing it from the PodFreq.



Connect your iPod to Sonnet's FM transmitter.

ALL-IN-ONE RELATIONAL DATABASE

FileMaker 7 Pro

\$299, www.filemaker.com

Available: Now

This upgraded database-creation software lets you import any document type into Container fields, and then open multiple windows within one database. A FileMaker database can now hold up to 8TB (terabytes) of data with up to 2GB in a text field; plus, new relational database-style architecture lets you store multiple database tables in one file.

DROOLWORTHY

Sexy Stuff We Can't Wait to Get Our Mitts On

Dansk LCD TV →

Straight outta Denmark, the **Eyegonomic W32** (€4,166 or about \$5,150 at press time, www.eyegonomic.com) is a 32-inch LCD display with a built-in TV tuner that mounts on your wall or stands on your desk. The stark, stylish W32 has dream specs for an LCD geek: 450 cd/m2 brightness, 500:1 contrast ratio, and a 170-degree viewing angle, as well as DVI, VGA, S-Video, and composite-video ports. Right now the TV tuner supports only European PAL formats, but it should support NTSC (North American) TV as well when released in the U.S. later this year.—NR



PHOTOGRAPH COURTESY OF EYEGONOMIC



PHOTOGRAPH COURTESY OF HANDHELD ENTERTAINMENT

← Li'l Video Player

Handheld Entertainment's **ZVue Media Player** (\$149, www.zvue.com) lets you view JPEG stills, MP3 audio, and a few video formats on its 2.5-inch LCD display. Transfer files onto an inserted SD card via USB 1.1, and navigate content using the onboard buttons. The ZVue supports only FAT-formatted SD cards, and not the more-recent FAT-16 and FAT-32 formats, and although it'll play MPEG-encoded AVI and DivX video, it won't play QuickTime-encoded formats—yet. Handheld Entertainment is hammering out a final Mac-friendly player that should be available by the time you read this.—NR

BAG IT!

Stylish, Sturdy Bags for Your Laptop

The perfect tote for your iBook or PowerBook should look good, withstand everyday stress, and survive the occasional typhoon. Here are a few laptop bags that caught our eye.—NR

- 1 ▶ MARWARE'S MILANO BRIEF** (\$139.95, 149.95, or 159.95; www.marware.com) is designed in 12-inch, 15-inch, and 17-inch sizes for PowerBooks, and also accommodates iBooks in its padded, plush laptop compartment.



- 2 ▶ AXIO'S URBAN HARDPACK** (\$149.95, www.axio-usa.com) has a molded polyethylene protective shell and fits up to a 17-inch PowerBook with room to spare. Petite people might find the frame too big for comfort.



- 3 ▶ CRUMPLER'S CRIPPY DUCK** (\$80, www.crumplerbags.com) holds 12- or 15-inch 'Books in a superpadded pocket, and has extra pockets for files, cables, and media. The Velcro is a great barrier against spills, but getting inside can be a struggle.



- 4 ▶ BRENTHAVEN'S PROFILE** (\$99 or \$119, www.brenthaven.com) is a three-compartment way to carry your 12- to 15-inch 'Books, plus cables and folders. Made of ballistic nylon, this bag is adequate for a day's worth of long meetings.



- 5 ▶ CHROME'S BLACKBOX** (\$90, www.chromebags.com) fits 'Books up to 15 inches and looks like a bomb-detection kit. It comes with a removable padded laptop sleeve and an extra pocket to carry cables, media, and a few folders.



- 6 ▶ TIMBUK2'S COMMUTE BAG** (\$100, www.timbuk2.com) fits 15-inch or smaller 'Books and looks like a grown-up bike-messenger bag. It has a padded laptop compartment and an immeasurable number of pockets.



MO' MICROSOFT OFFICE 2004

We showcased Microsoft Office 2004 (\$349 street, www.microsoft.com/mac) in our story, "Office Goes to 11," (Mar/04, p22), but Microsoft has since revealed some additional features.—NR

WORD Don't you get sick of having to run to that Edit > Paste Special command? In Office 2004, a **Smart Button** pops up when you paste, asking you how to format the pasted text. Choose your preferred format without running to the Edit menu.



EXCEL Formatting charts is easy in Office 2004, thanks to Excel's **new chart formatting features**. Color Schemes let you quickly cycle your chart through various pleasing color combinations, and you can also choose colors from the full-range of **RGB and CMYK color models**. Graphic designers will enjoy the ability to **save charts as GIF, JPEG, and PNG files**.



POWERPOINT Office 2004's PowerPoint includes new **animated transitions**, and the **Presenter Tools view** shows presenters their notes plus thumbnail views of the entire slideshow, while the audience sees only a chosen slide.



ENTOURAGE You can now view a mailbox's **Preview Pane on the right side of a window**, so it doesn't disappear at the bottom of your display. Plus, an **improved Junk Email filter** helps keep spammers at bay.

FIVE TIPS

SCAN OLD PHOTOS FLAWLESSLY

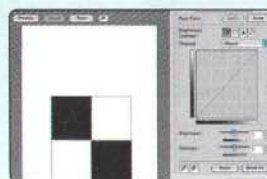
When you're scanning old pictures into your digital photo library, color fidelity is key to keeping the integrity of the original image. After all, you don't want Old Blue Eyes to go green, do you? We asked scanning master Randy Zaucha, creator of the ZBettterscan Method (\$39.95, www.zbettterscan.com) color calibrator for Photoshop, for a few tips on tweaking the settings within your scanner's software interface.—NR

1 Turn off Automatic Settings In your scanner's software interface, locate its automatic mode, and turn it to manual mode if possible. If your scanner has no manual settings, be sure to crop your scan *inside* the image you are scanning. Cropping *outside* the image scans the scanner's lamp as it shines through the scanner-bed glass, confusing the auto mode.



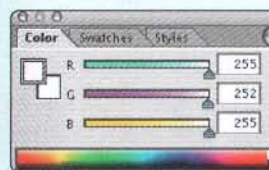
Crop to just inside the image for a better auto scan.

2 Calibrate with Black and White To calibrate your scanner, first scan a black-and-white print and adjust your software interface controls—such as highlight controls (for light tones), shadow controls (for dark tones), contrast, and gamma controls—so the scan that appears on your display looks as close to the original as possible without using retouching tools in apps like iPhoto or Photoshop.



Calibrate your scanner using a black-and-white image.

3 Control Your RGB Values Never let the brightest portion of your scanned image have red, blue, or green values greater than 255 or less than 210, and never let the darkest tones of your image have red, blue, or green values greater than 60 or less than 5. Tweak the highlight or shadow controls in the scanner interface to get values between these levels.



These red, blue, and green values suggest this scanned image is too bright.

4 Try the Gamma If you use the guidelines in step 3, and your overall image still appears too light or dark, use the gamma control (which adjusts mid-tones) to lighten or darken the image.



Tweak the gamma if adjusting highlights and shadows fails.

5 Scan High Always scan at the highest bit-depth setting allowed by your scanner. Many scanners scan at 16 bits of data per channel (48 bits overall) for maximum image detail.

SHAREWARE PICK OF THE MONTH

EarthBrowser www.lunarsoft.com \$29.95

Find out just how dynamic the world's climates really are with EarthBrowser. This spinning 3D rendition of the Earth gives you locations of earthquakes, volcanoes, and tectonic plates, plus animated cloud detail, seven-day forecasts, and weather info for over 17,000 locations, and snapshots from hundreds of Webcams around the globe. You can zoom in on a detailed map as close as 2 kilometers (about 1.2 miles) per pixel, including color-coded ocean-depth variations.



—Andrew Tokuda



It's partly cloudy this evening in Angra Dos Reis, Brazil.

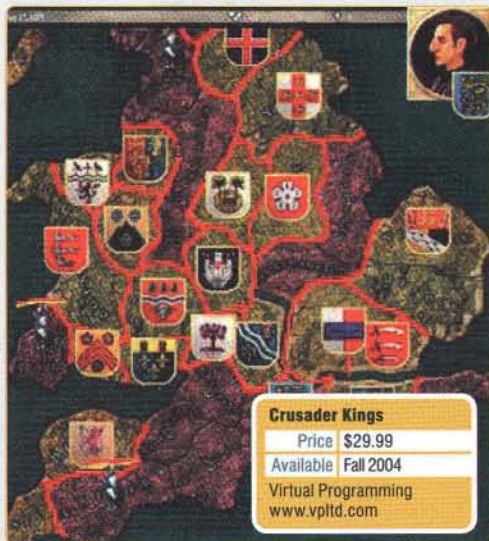
THE WILD WORLD OF SPACE COLONY

Hop into the gravity boots of the sassy Venus and her dysfunctional chums as they colonize the final frontier: space. Appease colonists (building hot tubs works well), placate ruthless alien neighbors, manage resources, farm space chickens, and keep your crewmembers from getting depressed. This single-player campaign is a series of skirmish missions that lets you draw upon economic power and military muscle. Mix Space Quest with StarCraft and The Sims, add some *Space Balls*-style humor, and you've got Space Colony.—*Matt Osborn*



Space Colony

Price \$29.99
Available May 2004
Aspyr
www.aspyr.com



Crusader Kings

Price \$29.99
Available Fall 2004
Virtual Programming
www.vpltd.com

ALL HAIL THE CRUSADER KINGS

Based on the engine of its predecessor, Europa Universalis, Crusader Kings blends role-playing and adventure into this historical strategy game set in feudal—and feuding—medieval Europe. Your goal, first and foremost, is to cultivate prestige and piety to bolster your family's dynasty. Next up, expand your fiefdom using strategy, warfare, and diplomacy. Play the campaigns of the Hundred Years War, the five Crusades, and the Mongol Wars. Then go online or on a LAN and battle it out with up to eight players.—*MO*

CHOOSE YOUR OWN IPOD ADVENTURE

A dragon has eaten your iPod. To fight back, choose one of the options at the bottom of your iPod's screen in XO Play's text-based adventure, Rise of the Lost. Play Sir Jacob Zavior who is fighting the Grand Wizard to save the Kingdom of Valance. If you'd rather be sleazy than noble, try Herbert's Big Adventure, in which you play a lady killer looking to get lucky. Install the games in your iPod's Notes folder and access them in the Extras > Notes menu. These games play only on third-generation iPods.—*MO*

The Rise of the Lost Herbert's Big Adventure

Price \$9.99, \$14.99
Available Now
XO Play
www.xoplay.com
www.xoplay.com/herbert

RUN OR RIDE OUT OF FUEL

Have you ever wished you could switch vehicles halfway through a racing game? Welcome to Fuel, where you start out racing on foot and charge through all sorts of natural and man-made terrain, alternating between mad-dash running and hopping into vehicles such as a helicopter or speedboat.—*MO*

Fuel

Price \$29.99 (est.)
Available TBA
Virtual Programming
www.vpltd.com

TIPS: STAR WARS JEDI KNIGHT: JEDI ACADEMY

"The Force is my greatest ally, and a powerful ally it is."—*Master Yoda*
\$49.99, www.aspyr.com

Use Force Speed If you're trying to move faster by jumping repeatedly (pounding the spacebar), use Force Speed (F3) instead—it's a more effective way to increase your speed.

Roll Quickly Rolling is overrated. A quick roll, while effective for dodging sabers, slows you down. Be sure to regain speed quickly by using your Force Speed (F3) power at the beginning of the roll.

Side Flip Side-flipping off walls is underrated. It's a good way to dodge opponents and, if done correctly, land on top of them to knock them down.

Exploit the Force Learn to use all the powers of the Force: Lightning, Push, Mind Tricks, Jump, Heal, Speed, and Choke.



ON THE DISC

FruitMenu 3.2.1,
WindowShade X 3.1,
ShapeShifter 1.2,
iPhoto Diet 2.1.6,
MacJanitor 1.2.1, iCal
FTP 1.1, Pacifist 1.6.3

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TIPS

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Power **Tips**

Shortcuts, secrets, and sanity-savers that we guarantee will improve your Mac life.

No two ways about it. Today's Mac is a complex beast. Your Mac, its operating system, and its apps are more powerful than ever, which means there are tons of hidden tips and tricks that you might not discover for years. Plus, there are usually two, three, or four ways to do just about anything when working with your beloved computing appliance—and those alternatives may be faster, simpler, and more convenient than the way you currently do things.

From copy and paste to swapping windows, switching apps to troubleshooting your Mac, we show you how to work both faster and smarter on your Mac. Here are 79 different ways to get started doing exactly that.

by Todd Stauffer

Wow!

Control the Finder

Today's Finder makes it possible for different people to work in different ways. For example, some may shun the Dock, but others may use it exclusively for launching and managing applications. Here are some hints to help you squeeze the most out of the Finder.

1 Drop Drag-and-Drop

What do you do when you get sick of good ol' drag-and-drop every time you want to move files? Fall back on good ol' copy-and-paste! To move a file without dragging it, select a file icon (or icons) and use the familiar Edit > Copy command (or Command-C) to move those files into the clipboard, then switch to another folder and select Edit > Paste (Command-V) to place those files there.

2 Move Instead of Copy

When you drag a file from one volume to another, your Mac copies that file to the new volume. However, if you press the Command key while dragging the file to another volume, your Mac moves the file rather than copies it.

3 Change Windows Fast

Say you're working in Word, and you've got three windows open. To switch to one of the other open windows without lifting your hands from the keyboard, press Command+accent grave (`). Repeat until you sigh with satisfaction. Command-Shift+accent grave goes the other direction—if you can twist your fingers into that key combination.

4 Get Dizzy with the Dock

As you probably know, Command-Tab cycles you through all open applications in the Dock. But try this: Press Command-Tab once—this takes you to the last active application (the one you were using before you switched to the current active app). Pause a moment, then press Command-Tab again—this takes you back to the original app you were using.

For example: You're using Word and you want to look something up in Safari. Press Command-Tab till you reach Safari in the Dock. Look up what you need to. Now, Command-Tab once—back to Word. Need to look up something else? Command-Tab—zammo!—back to Safari.



Panther's app switcher helps you toggle between apps.

5 Let Your Fingers Do the Talking

Serious speed demons use keyboard commands. To join the speedy elite, you need to learn their tricks—including using just your keyboard in dialogs. In a native Mac OS X application's Open or Save dialog, press Tab until you select the navigation pane, then use the up and down arrows to select items in the first row or column (or type the first few characters of the file

or folder you want). Highlight a folder and press the right arrow to open that folder; press the left arrow to move back a folder. Press Command-Shift-N to create a new folder. The Esc key closes the dialog. The Return key opens or saves the item.

6 Switch Views Fast

If you want to switch between Finder views without having to use your mouse, press Command-1 to change to Icon view, Command-2 for List view, and Command-3 for Column view.

7 De-metallize Finder Windows

Do you prefer the days when life—and Finder windows—were simpler? Even though you've moved on to Panther, you can still recapture times past. Double-click your hard disk icon on the desktop and click the widget in the top-right corner of the Finder window. Panther will lose the whole shiny brushed-metal thang, and you'll get something more like the old Aqua-looking Finder windows. Doing this also gets rid of the Panther Sidebar and other toolbar icons.

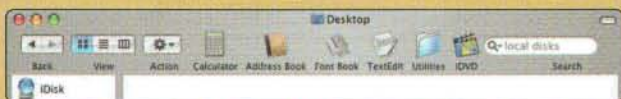


The toolbar widget changes Panther's superhuman Finder windows into regular Clark Kent windows.

8 Create Toolbar Aliases

In older versions of Mac OS X, creating Finder window toolbar aliases was easy—just drag folders, applications, or files to the toolbar. In Panther, the Sidebar is your most likely target for folder aliases—but if you still want to put an app or folder icon on your toolbar, simply drag it from a Finder window to the toolbar and wait a second. You'll see either a blank box scoot out of the way or a plus sign in a green circle appear on your cursor—when you do, release the mouse to add the item.

If that blank space is getting in your way, choose View > Customize Toolbar and remove the space—which will appear as an outlined box—by dragging it out of the toolbar. In fact, to remove any item from the toolbar, you need to go to View > Customize Toolbar, then drag the item out of the toolbar.



Items can enter the toolbar, but they can't get out—unless you access View > Customize Toolbar.

Pay Homage to OS 9

Bring back your favorite parts of the Classic OS.

Mac users customize Mac OS X for two reasons: to make it more like Mac OS 9 or to impress a date. Admit it, though, guys—customizing Mac OS X will almost never impress a date. Even so, check out the following shareware from Unsanity (www.unsanity.com).

10 Windowshade X

Bring back the ability to double-click the title bar of any window and collapse that window down to just that bar. Windowshade X also lets you minimize in place—instead of turning a window into an icon in the Dock, it turns that window into an icon on the desktop. (\$10)

11 ShapeShifter

This enables you to switch themes to change the look and feel of your Mac. No way, you say. Way, we say. From icons to windows, menus to buttons, ShapeShifter can give your Mac an extreme makeover. ShapeShifter includes some slick themes, and you can also download third-party ones. Go to www.unsanity.com/haxies/shapeshifter for a list of download sites. (\$20)



Check out this bit of subtle interface elegance. Yowza!

12 FruitMenu

Now you can add hierarchical menus to your Apple menu so that you can quickly access things like your Applications folder. (\$10)

9 See Ya, Sidebar

Hate the Panther Sidebar? Then double-click the right border of the Sidebar, and it disappears like cash on a Three Card Monty milk crate. (Double-click the left edge of the Finder window to restore the Sidebar.)

Double-click the border to hide the Sidebar.



Expose Exposé

Learn even more cool Exposé tricks.

13 Move Files Easily

Click and drag a file from the Finder or a selection from an open app window, press the Exposé All Windows key (F9), then hover over the window of an app into which you want to place the file or selection. In a few seconds, that window will blink, then expand to normal size—drop your file or selection where you want it.

14 Spell Exposé

Sure, you know how to use Exposé—but do you know how to type it correctly? To type the é character, first type Option-E, then type the letter E. Option-E also works for other letters that need an acute accent mark. To see other special characters, go to Edit > Special Characters in most native Mac OS X apps.

Dig Into the System

Mac OS X is ripe with features, shortcuts, and apps that many users never take a second look at. But don't discount them yet—they're worth another look.

15 View File Extensions

If you ever have to trade files with Windows or Unix/Linux users, you need to tell their computer what kind of document you're sending. So to make sure you never forget, in Panther, Choose Finder > Preferences, click the Advanced button, and turn on the option Show All File Extensions. In Jaguar, go to Finder > Preferences and choose Always Show File Extensions.



Turn on Show All File Extensions and get used to them—they're a way of life.

16 Tinker with TextEdit

TextEdit may look simple on the surface, but it has hidden powers. For example, you can view HTML documents in two ways. When you first open most HTML documents in TextEdit, you see them rendered as HTML by default. To change that, open TextEdit > Preferences and under the Rich Text Processing pane, turn on the Ignore Rich Text Commands In HTML Files option. Now you can use TextEdit to edit raw HTML documents.

17 Don't Ask Me No Questions

Are you getting sick of your Mac confirming that you want it to restart, log out, or empty the Trash? Hold down the Option key while selecting those commands (and others that provide a warning) to skip the confirmation process. If only you could do that when they check your credit report at the Porsche dealership.

18 Use Services

The under-utilized Services menu that you find under the application menu of native Mac OS X apps sometimes gets a bad rap. But with each new Mac OS version, the Services feature improves a bit.

One of our favorite Services is Summarize. If you've got a long block of text in a document and you want just the high points, select that text and choose Services > Summarize from the current program's application menu. That brings up a window that gives you the main points in that document. It's hit-or-miss sometimes, but often it hits well.

(Note that some Mac OS X apps—notably Word, Excel, and Photoshop—don't support Services.)

The Services menu offers some interesting shortcuts.

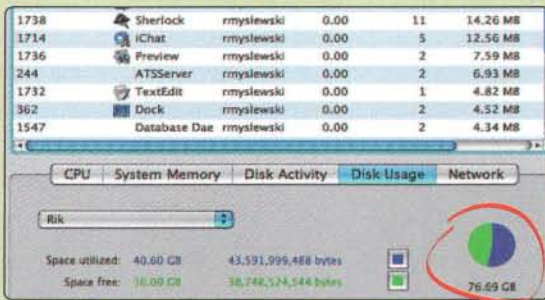


Get Your Geek On

Underneath the simple Mac OS X user interface is a complex world of trickery that, if used correctly, can give your Mac a whole new set of powers. It all begins in the Terminal (Applications > Utilities > Terminal).

19 Long Live Activity Monitor

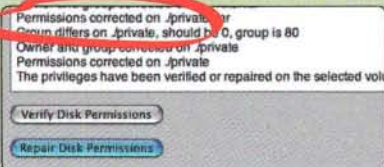
To true power users, Panther's Activity Monitor (Applications > Utilities > Activity Monitor) is too cool for words. It's similar to the Process Viewer from older Mac OS X versions—launch it to see what applications and background processes are running, how much CPU and memory they're using, and so on. Even cooler are the tabs at the bottom of the window that let you monitor disk usage, system memory, and network activity. If you are experiencing a slowdown, check these to see where the problem is.



If some Windoze geek tries to impress you with his hard-disk pie chart, show him Activity Monitor's Disk Usage tab.

20 Dig Into Disk Utility

The modern-day super-dooper-fix-it-all equivalent to the old Rebuild Desktop command is Repair Disk Permissions. Just go to Disk Utility (Applications > Utilities > Disk Utility), choose a drive, and click the First Aid tab. Run it once a month; more if you notice odd slowdowns when you're trying to launch applications or after you've installed a new app or update.



This OS installation is only a few days old and it already needs repairs.

21 Abuse Your Function Keys

Want to be a real geek? Then learn to command your Mac using just the keyboard. Enable Apple's Full Keyboard Access (System Preferences > Keyboard & Mouse > Keyboard Shortcuts) to unleash the OS's hidden function-key talents.

Key Combo	What It Does
Control-F1	Turns on Full Keyboard Access
Control-F2	Moves you to the menubar so you can choose items with the keyboard
Control-F3	Moves you to the Dock
Control-F4	Switches between all open windows
Control-F5	Moves you to the toolbar in the current window
Control-F6	Moves you to any open palette-style window

22 Hop over Permissions Issues

One major Mac OS X irritation is the issue of permissions—files you can't delete because you don't have permission to, even though they're in public folders you can access. The trick is to launch Terminal and go after such files via the command line using the `sudo` (see "Get to Know `sudo`," p24) and `rm` (remove) commands. For example, you could type the following command to delete the file `document.txt` in the Shared folder:

```
sudo rm /Users/Shared/document.txt.
```

Press Return, and a prompt to enter a password appears; as long as you're an administrator, you can delete the file.

23 Run Maintenance Scripts Manually

Do you shut down your Mac at night? If so, it may not be running some scheduled Unix-level scripts that are necessary for occasional file system maintenance. You can run those scripts manually, though, using one of two methods. The easy way is to use MacJanitor (free, http://personalpages.tds.net/~brian_hill/macjanitor.html), but the tinkerer's way is to use the command line and type `sudo /etc/Daily`. Press Return and a prompt for your Admin password appears; enter it and press Return again. That sets the script in motion. You would type, predictably, `sudo /etc/Weekly` and `sudo /etc/Monthly` for the other scripts.

24 Back Up, Jack

The command line has a special ditto command that's handy for backing up files as well as copying Mac OS X applications correctly. (The standard Unix copy command, `cp`, doesn't correctly copy Mac resource forks and files, which means it can sometimes screw stuff up.)

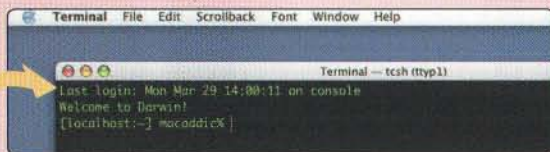
To quickly back up items in your Documents folder, type `ditto -rsrc ~/Documents ~/Desktop/DocBackup`.

This command creates a folder on your desktop called `DocBackup` and places within it any files and folders that are in your Documents folder, including ones with Mac-specific resource information.

25 Say Bye-Bye Finder!

The defaults write command is a powerful, dangerous tool. It enables you to change preferences by writing directly to preference files, including important system-level stuff. For example, would you like to start up your Mac in Terminal, instead of the Finder? It can be done by typing in **defaults write com.apple.loginwindow Finder (space) /Applications/Utilities/Terminal.app**.

You can even sub in a Finder replacement app such as Path Finder (\$34, www.cocoatech.com). Too extreme for you? You can restore the original Finder by typing **defaults write com.apple.loginwindow Finder (space) /System/Library/CoreServices/Finder.app**.



We ditched the Finder in favor of the Terminal at startup.

26 Launch Apps

For some reason, Unix-heads get a kick out of opening applications from a Terminal window; the same is possible using Mac OS X's Terminal, although the command is slightly different. To launch iPhoto, type **open -a iPhoto.app**.

For applications with a space in their name, use double quotes around the name. For example, you would type **open -a "System Preferences.app"**.

This command also works on remote Macs that you've logged into using ssh, which can be handy if you need to run an app on a remote computer and you can't get to its keyboard.

27 Get to Know sudo

The sudo command stands for *substitute user do* and it's a way to perform administrator-level (root) tasks from the command line. Use sudo to begin a variety of commands—everything from deleting stubborn files to rewriting system-level files.

One thing to know about sudo, though, is that it has a time limit. Say you run all three scripts in the "Run Maintenance Scripts Manually" tip (p23). As long as you type them one right after another, you probably only need to enter the sudo command the first time since the shell—Unix's interactive command interpreter—remembers that you're in sudo mode for five minutes after each successful command.

28 Print Folder Contents

The Classic Mac OS has the ability to print folder contents from the Finder; Mac OS X does not—but there is a workaround. When typing a command in the Terminal, you can use the greater-than sign (>) to force the output from that command to be stored in a text file instead of displayed onscreen. It's kinda cool when you think about it. Well, it is if you're a nerd.

The command for a detailed listing of a folder is **ls -l**. To create a text document that lists the contents of your Documents folder (which you can then print!), type the following:



It's not elegant, but this is a list of our Documents folder content.

ls -l ~/Documents > ~/Desktop/filelist.txt

This creates a document called filelist.txt on your desktop, and that file lists everything in your Documents folder. If you want to list the contents of any subfolders—and the subfolder's subfolders—type **ls -lR ~/Documents > ~/Desktop/(no space) filelist.txt**.

Find Mac Help

There's a lot of Mac info online.

29 Use Apple Keywords

The Apple Support KnowledgeBase offers special keywords (also called *kwords*) that can help you get to important information faster.

Keyword	What It Means
km09	Mac OS 9
km0x	Mac OS X
kibook, kibg4	iBook, iBook G4
kimac	iMac (CRT)
kimacfp	iMac (LCD)
kpb3, kpb4	PowerBook G3, G4
kpmg3, kpmg4, kpmg5	Power Mac G3, G4, G5
kitunes, kipod	iTunes, iPod
kfaq	Frequently asked questions

30 Get Help from Mac Sites

Where do you go when the Apple KnowledgeBase fails you? Here are some good places to get help online.

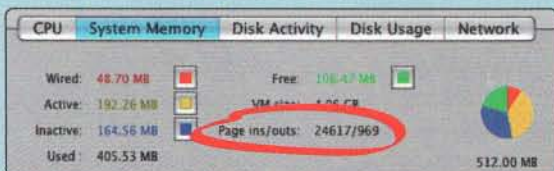
- APPLE DISCUSSIONS** <http://discussions.info.apple.com> Users discuss Apple products, as well as problems Apple has yet to address (or hasn't yet owned up to) in its KnowledgeBase.
- MACFIXIT FORUMS** www.macfixitforums.com Experts provide troubleshooting advice on all sorts of Mac hardware and software.
- MACINTOUCH** www.macintouch.com Some of the best and the brightest in the Mac community frequent this site—ask for help, and ye shall receive.
- MACNN FORUMS** <http://forums.macnn.com> In addition to news, you'll find troubleshooting help for hardware and software, plus discussions and info archives.
- ACCELERATE YOUR MAC** www.xlr8yourmac.com Looking for information, advice, and databases full of info about upgrade products, procedures, and troubleshooting? Here 'tis.

Manhandle Your Hardware

We love hardware, as do any self-respecting Mac addicts. But how do you know when you need more RAM? What's the best way to speed up your Mac? And how do you preserve your iPod's battery?

31 Calculate RAM Usage

Don't believe you need more RAM? Here's a way to check. After your Mac has been running for a day or two, launch the Activity Monitor utility (sorry, Panther only). Click the System Memory tab at the bottom of the window. Check the Free Space and Page Ins/Outs statistic, which tells you how often the OS needs to move items from RAM to your hard drive. If those numbers are excessive (say, if they each reach six digits in a day or two), take that as a sign that you'd benefit from a RAM upgrade.



Looking at Page Ins/Outs might give you a clue as to whether you need RAM.

32 Power Your iPod

You may have heard about the complaints and repair-program brouhaha over iPods plagued with dead batteries. Well, before your 'Pod ever gets to that stage, there are a few things you can do to keep its battery in good shape. For one, it's a good idea to keep the iPod in a warm place at all times. Ideally you shouldn't turn it on when it's been sitting in the cold—like if it's been in the car overnight during a freeze. Remember: There's a cold-averse hard drive with moving parts inside the iPod.

Also, keep it plugged into FireWire on your Mac whenever possible. The less often the battery fully discharges, the longer it will last. For more advice, see www.ipodbatteryfaq.com.

Keep your baby plugged into FireWire whenever possible.

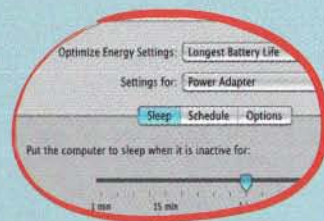


33 Span Your Screen

As far back as the PowerBook G3 (Bronze keyboard), Apple's PowerBooks have supported the ability to span your desktop from the built-in display to a second external display. But did you know there's a hack to make that work on certain iBooks and iMacs that don't have this capability? Whether this hack works depends on your Mac's internal video circuitry. For example, it should work on the iBook G3/700 and faster (and some 600MHz models), the iBook G4 models, the 17- and 20-inch iMac G4s (and very recent 15-inchers), and the eMac models with the ATI Radeon 7500 graphics card. See www.rutemoeller.com/mp/iBook/iBook_e.html for the compatibility list, the disclaimer, and the software you need to make this work.

34 Save Battery Power

To maximize PowerBook and iBook battery running time, the mantra is to do as little as possible. Eject CDs, since they tend to spin up occasionally; use as few applications as possible to keep Mac OS X from swapping to disk; and disconnect anything that you don't need, such as USB and FireWire devices that may draw power. Also, turn off AirPort cards (in the Network System Preferences) and Bluetooth (in the Bluetooth System Preferences). Finally, open the Energy Saver system preferences and set the Optimize Energy Settings menu to Longest Battery Life.



To optimize your 'Book's battery, change your Optimize Energy Settings.

35 Speed Up Your Mac

Aside from RAM and processor speed, three major issues can make your Mac seem sluggish: video performance, hard disk performance, and permissions problems. For desktop Macs, install a new video card if your Mac's game or graphics

performance is lacking. For disk performance, use a disk doctor utility such as Norton Utilities (\$99.95, www.symantec.com) or TechTool Pro 4 (\$97.97, www.micromat.com) to regularly look for problems and optimize your hard drive. For permissions problems, launch Mac OS X's Disk Utility and use First Aid to fix permissions.

36 Wipe the Slate Clean

What's the best way to optimize your drive? Back up your documents, format your hard drive using Disk Utility, and reinstall the Mac OS and your apps. It may not be practical to do this more than every year or two, but take advantage when an opportunity arises—for example, when you plan to install a new Mac OS X version.

Still cringing at the thought of doing the above? Then create a second volume or buy another drive, and use it to store video, photos, and music. That keeps your multimedia files from fragmenting your startup disk and slowing down your system.



Buy a second hard drive to store movies, pix, and music.

Shop Cheap

Find deals on the Web.

37 Go Used or Refurb

If you're looking to get a good, solid Mac at a reasonable price and it's not mandatory that you be on the bleeding edge, then consider a refurbished Mac—a returned item that Apple has taken into the shop, checked out, and fixed if necessary. Apple lists refurbished equipment on its own store page (www.apple.com/store)—just look for the red-tag Special Deals button. Another great place to check is Small Dog Electronics' "Famous" Price List (www.smalldog.com/SmallDogPriceList.txt), which lists new, demo, refurbished, and used-system prices.



**Small Dog
Electronics**

Check Small
Dog for new,
used, refurbished,
and more.

38 Look at Upgrades

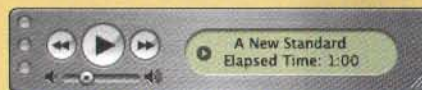
Another way to save money is to upgrade your current system. A great place to check out upgrade choices for your machine is Other World Computing, which carries accelerator cards from a number of vendors. Go to www.macsales.com and choose Accelerators. Choose your Mac from the scrolling list, then click Show Models. The results show various processor accelerator options. You can also look up other types of upgrades, such as RAM and video.

Make iTunes Your Own

On its face, iTunes may seem like a simple digital jukebox. Even so, it has some interesting nooks and crannies where you can still find nifty features.

39 Mini-fy Tunes

If the iTunes interface is hogging too much room on your screen, click the green maximize button to turn it into a tiny player. Or you can Option-click the green button to set iTunes to the exact right width to display song information.



Make a Mini-Me version of iTunes.

40 Quickly Control iTunes

Don't feel like opening up the iTunes window to skip to the next song? Luckily, you don't have to. Just Control-click or click and hold the iTunes icon in the Dock to display playback options including Shuffle, Next/Previous Song, and Repeat All.



Enlist the Dock to control iTunes.

41 Choose Your Own Organization

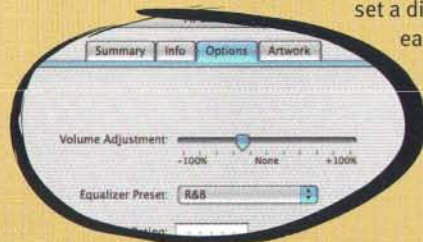
If you want to organize your iTunes Music folder rather than having iTunes automatically arrange it into album and artist folders, then open iTunes > Preferences and click Advanced. Turn off the Keep iTunes Music Folder Organized option. Now, you're free to make any changes—those changes won't affect your Library and Playlists, only the way the songs are arranged and filed away on your hard disk.

42 Find Your Tune

By default, iTunes buries your music several levels deep on your hard drive. But there's a quick way to locate that song file when you're in iTunes. Simply select your song and go to File > Show Song File, or press Command-R. iTunes will take you to the selected song on your hard drive faster than Dorothy gets back to Kansas—after clicking the heels of her ruby-red slippers, of course.

43 Adjust Individual Volumes and EQ

Got a song that blasts you off your chair every time it comes on in iTunes? Well, if you don't like that feeling, select it in the Library, choose File > Get Info, and click the Options tab. Now you can set the Volume Adjustment slider. In that same pane you'll also find the Equalizer Preset option, which allows you to set a different EQ preference for each song in your Library.



Set a song to its own EQ setting for customized thumpability.

44 Mind the Gap

When iTunes imports tracks from a CD, it inserts a short gap between tracks. With some albums—especially classical ones, where music often continues from track to track—that gap interferes with playback. To avoid that gap, you can join tracks on a CD before importing it. Choose the two (or more) tracks in question and then choose Advanced > Join CD Tracks. iTunes will even indicate that the operation was a success via a connecting line between the two tracks.

45 Rip Off Some Scripts

iTunes is nicely scriptable, and for those of us who have avoided learning AppleScript, power user Doug Adams comes to the rescue by providing tons of prefab scripts (check them out at www.malcolmadams.com/itunes/index.php). The scripts available on that site enable you to perform such voodoo as renaming batches of songs, finding artwork on the Internet (such as from Amazon.com or iTunes Music Store), and displaying your current song as your status message in iChat—just in case you want to let your buddies know what you're listening to at any given moment.

46 Change Up the Visualizer

The iTunes visualizer can get a bit redundant at times. But using some keyboard commands, you can learn to control and customize it.

Command	What It Does
Command-T	Turns on the visualizer
Command-F	Makes the visualizer full-screen
F	Displays the framerate
T	Caps the framerate at 30 fps
I	Shows song information
Q and W	Changes the waveform
A and S	Changes the background pattern
Z and X	Changes colors of effects
M	Changes the mode (for example, random slide-show mode versus user-configured slide-show mode)

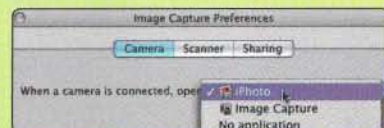
Manipulate iPhoto

Make iPhoto do things it ordinarily can't.

47 Change Your Camera's Buddy

By default, iPhoto should launch when you connect your digital camera to your Mac. You can change that behavior, but talk about your nonintuitive solutions! Launch Image Capture (in your Applications folder) and open Image Capture >

Preferences. Under the Camera tab, choose the application you want to launch when you connect your camera (or No Application).



Use Image Capture to set what happens when you connect a camera.

48 Run iPhoto at 800 by 600

According to the iLife '04 system requirements, you need a display with at least a 1,024-by-768 resolution, thus leaving older Macs such as 800-by-600 iBooks in the dust. Fortunately, some hard-working souls have discovered that this restriction is about iMovie, not iPhoto, and have provided a workaround. Simply use Pacifist (\$20, www.charlessoft.com) to extract the iPhoto installer package from the iLife disc, and install it separately. You can check out the instructions in the tutorial at Blogintosh (<http://blogintosh.com/pages/tutorialmain.html>).

49 Slim Down iPhoto

iPhoto retains extra copies of your pics whenever you rotate an image, make corrections, launch another app for image editing—possibly even when you sneeze—and these duplicates end up wasting precious hard-drive space. The solution is not Atkins, but instead, iPhoto Diet (free, <http://pages.cpsc.ucalgary.ca/~fuhrer/personal/freestuff>). Use this app to slim down your library—you get several dieting choices, such as the option to remove all originals, unrotated originals, or redundant duplicates.



Remove unwanted duplicate images from your iPhoto Library.

50 Move Your Library

By default, your iPhoto Library is stored on your startup disk in your home folder. Want to move it somewhere more convenient, such as your desktop? First, quit iPhoto. Now, move your Library to a new location. Once it's there, launch iPhoto. A dialog will appear telling you that iPhoto can't find your library. Simply click Find Library and use the resulting dialog to locate the Library in its new location.

Spice Up iMovie

iMovie's been around the block a few times, and so there's no shortage of choice tips and tricks available to help you get the most out of your iMovie experience.

51 Transfer a Clip

Those clips that iMovie stores in the Media folder—particularly the ones named *Clip 62* or similar—are actually raw DV files that you can play in QuickTime or move to other iMovie projects. In the Finder, just drag and drop them into another project's Media folder—and if you need the clip in both projects, hold down Option while dragging to create a duplicate. In the Finder's Column view, you can even preview clips.



You can view raw iMovie footage clips in the Finder.

52 Crop Photos

If you're working with still images in iMovie, you don't have to go back to your image editor to crop your pictures to the correct dimensions. Click the Photos button, turn on Ken Burns Effect, and choose an image. Now, click the Start button and use the pan and zoom commands to position the image the way you want it to appear. When you're done, press Option while clicking Finish. Set a time for the clip, click Apply, and you've got a perfectly framed photo.

53 Explore .Mac

If you're trying to find the perfect piece of music to accompany your movie—and you're a proud member of .Mac—check out your iDisk, which contains royalty-free music. Go to your iDisk, and navigate to Software/Members Only/Freeplay Music. There you'll find tons of clips in AAC format that you can use in your iMovies (GarageBand, too).

54 Fix Jerky Playback

If iMovie 4 playback looks choppy, launch iMovie Preferences and in the Advanced section choose Standard Quality (Smoother Motion) in the Playback Quality group.

55 Get into the Groove

iMovie 4 offers the ability to view the waveforms of a song that you've placed on an audio track in the timeline (in iMovie Preferences, select Show Audio Track Waveforms). Waveforms can give you a visual guide to help you pace your video to music—great for working with montages and music videos.

56 Think Before Emptying

It can be handy to empty the Trash often in iMovie in order to recover disk space for more editing. However, emptying the Trash makes it impossible to undo any recent changes. You also won't be able to use the Restore Clip feature (under Advanced) on clips that you've cropped if you've emptied iMovie's Trash.

57 Get QuickTime Pro

QuickTime Pro is great for any editing project, but it's particularly useful for translating video files from one format to another. It can handle all sorts of files—even PC-based movies—and export them to DV Stream format for use in iMovie.

Strike Up GarageBand

Creating music can get easier.

58 Rename Keyboard Buttons

In the Loop Browser (Command-L) you can change the keyword buttons to display different sets of loops. Control-click a button, then choose a different genre, instrument, or descriptor (such as *cheerful*) from the contextual menu. The name on the button will change—click that button to see the loops that go with your new keyword.

59 Fade Out

Need your song to end, but don't have an ending to give it? No worries—there's always the ol' fade out. Turn on the Master Track (Command-B, or Track > Show Master Track) and click the Master Volume check box. Near the end of your song, click the volume line once. Click again at the end of your song and drag that second dot to the bottom of the track.

60 Use a Mute

If you're recording using a microphone with GarageBand, you should either wear headphones or mute the track you're recording. Unmuted, your instrument (or voice) will play through the speakers as it's recorded. Mute it so you don't record the playback or generate feedback. Choose the instrument's track, and click the speaker icon (that's the mute button). If it's highlighted, it's muted.



Mute the track you're recording to keep an instrument from playing through your speakers.

Expose Word's Power

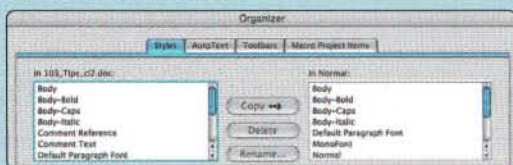
Whether we like it or not, Microsoft Word is the de facto word processor. So here's a bundle of tips to help you deal with this powerful—if swollen—app.

61 Know Your Keyboard Shortcuts

If you're like us, you press Command-X and Command-V (aka *cut* and *paste*) about a bazillion times a day. But there are some lesser-known shortcuts that are also useful. Command-Option-Page Down and -Page Up take you to the bottom and top of the window respectively. You can easily cycle through caps, lower case, and initial caps via Shift-F3. If you want to quickly jump to the very beginning or end of your document, press Command-Home or Command-End, respectively. (Note that these commands may or may not work on your keyboard.)

62 Transfer Your Styles

If you create styles or custom toolbars in one Word doc, that doesn't mean that they'll appear in the next Word doc you open. A quick way to transfer elements from one doc to another is to use the Style Organizer. Go to Format > Style and in the dialog that appears, click the Organizer button. In the Organizer dialog you can move styles, toolbars, AutoText elements, and macros from one document to another—and if you move them to Word's Normal file, they'll be available in every new document (File > New Blank Document).



Use Word's Organizer to give a style makeover to another doc.

63 Copy Formatting Quickly

A quick way to copy and apply custom formatting is to use the format painter tool. Highlight a word that has formatting you want to copy, click the paintbrush icon in the Standard toolbar, and select a word to apply the same style to them. If you double-click the paintbrush, you can paint the style for noncontiguous words (those that aren't in a continuous line) by selecting them. Click the paintbrush again to stop this behavior.

64 Split the Window

Ever find yourself madly scrolling back and forth through 46 pages of Word just so you can compare text in two parts? Well, go ahead and break Word—in two.

Choose Window > Split, and your document will divide into two window panes that display the same document (you can also split a window by pulling down the little aqua widget at the top-right of your scroll bar). After you split a window, you can scroll through each pane independently, thus allowing you to do all sorts of useful things, such as cut pieces from the end of a document and place them somewhere in the middle.



Your eyes do not lie. This is two Word windows in the same document.

65 Turn Off Auto-Correct Idiocy

If you don't like the way Word likes to fill in words or change Internet addresses to clickable links, choose Tools > AutoCorrect. Under the AutoCorrect tab, you can tell Word to stop capitalizing the first letter of every word or correcting two initial capitals, or you can specify exceptions to those rules. Under the Auto Format As You Type tab, you can turn off options such as automatic hyperlinks, bulleted lists, and smart quotes.

66 Save Multiple Clipboard Items

Command-C and Command-X retain the last item you copied or cut in your Mac's Clipboard. But did you know that Word can hold multiple Clipboard items? Go to View > Office Clipboard and you'll get a window that stores everything that you copy and cut for easy retrieval later on.

Strengthen iCal

iCal may not be the marquee iApp, but it has its strengths.

67 Publish iCal Calendars on Your Site

.Mac may be the easiest way to publish your iCal calendars, but what if you don't want to spend \$99.95 a year on a .Mac membership? If you have a WebDAV-based Web server, you can still publish your iCal calendars. In iCal's Publish dialog, choose On A WebDAV Server from the Publish Calendar menu. If you don't have WebDAV-based server space, then you can use iCal FTP (free, www.drewfindley.com/findleydesigns/products.html) to send those puppies to any old Web server space.

68 Use iCal to Automate Tasks

New in iCal 1.5 and later is the ability to launch an application or AppleScript when an alarm goes off. In iCal, set an event, and then edit that event's alarm setting in the details tray. From the Alarm pop-up menu, choose Open File, then from the iCal pop-up menu, choose Other. Now, locate the file, application, or AppleScript that you want to launch. This is great for setting reminders, automated backups, and other tasks.

Uncover Safari's Secrets

We love Safari, and we can't live without it. There, we said it. Now that we've admitted our dependence, it's time to talk about some of the features you may not know about—and how best to use them.

69 Use Page SnapBack

If you haven't yet discovered the wonders of the Page SnapBack feature in Safari, learn to use it—and the keyboard commands that empower it.

Page SnapBack enables you to set a page that you can snap back to—like eBay results or an index page for game cheats. To mark a page for SnapBack, press Command-Option-K while viewing the page. To snap back to that page, press Command-Option-P, or press the orange arrow button in the address field. (Click the orange button in the Google search field or press Command-Option-S to snap back to recent search results.)



The orange arrow button puts you back to a page you've marked.

70 Open Links Anew

You may already know that you can Command-click a link in Safari to open it in a new window. We can do you one better. Command-Shift-click opens the link in a new window *and* places it behind the current window.

If, however, you have Safari's Tabbed Browsing feature enabled, Command-click opens the link in a new tab and Command-Shift-click opens the link in a new tab while still displaying the contents of the first tab.

Now what if you have Tabbed Browsing enabled, and you want to open links in new windows rather than tabs? Well, Command-Option-click takes care of that, while Command-Option-Shift-click opens a link in a new window and places it in back.

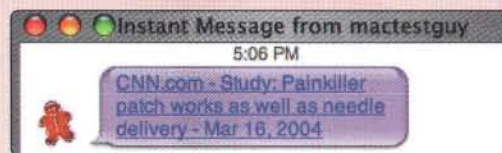
71 Get a New Search Results Window

Every Safari user has likely used the Google search box as often as they've used cut and paste in Word—a bazillion times. But there's a little trick that allows you to view search results in a

new window or tab (if Tabbed Browsing is enabled). Enter your keyword and then hold down the Command key as you press Return. Presto: results in a new window or tab. Hold down Command-Shift when you press Return to keep your original page in front.

72 Drag That URL Everywhere

Click and drag the small URL icon (also known as a *favicon*) in Safari's—or most any browser's—address field, and you've got a draggable URL. You know that part. But how about dragging that URL icon to a Bookmarks Bar folder for a lickety-quick way to create a bookmark? Or to the desktop to save that page? Or to an iChat message to send that URL to one of your buddies?



Dragging a URL icon into an iChat message sends that URL—without all the http:// junk.

Master Mail

Yep, even email has its share of tricks.

73 Redirect Mail

Mail, along with some other email programs—Entourage, for one—has a handy little function called Redirect, which you can use to send someone else an email message you've received. The difference between redirecting and forwarding is that the message will still have the original sender's address in the From section of the message.

To redirect in Mail, select a message and choose Message > Redirect. In the message window that appears, enter an email address. You can even edit the message before you redirect it. But don't get any sneaky ideas—Mail snitches on you if you modify the message.

74 Quick Mail Commands

Click and hold the Mail icon in the Dock to see its quick menu, which lets you access the often-used Compose New Message and Check For Mail commands.

75 Send Mail from Other Apps

Remember the Services menu (see "Use Services," p22)? Highlight some text in many native Mac OS X applications (remember, Word doesn't support Services), go to the application menu, and choose Services > Mail > Send Selection. Doing that pops open a new mail window with the selection text and/or images already embedded.

Get savvy with Google

Google is both powerful and right there on the frickin' Safari toolbar—and with the right tips, you can make it do some amazing stuff.

76 Search a Site

If you want to limit a keyword search to one site (especially one without its own search engine), you can use your old friend Google. Just type the search word or phrase followed by *site:* and the Web site address in the Google search field. For example, if you want to search MacAddict's site for the word *iMac*, type *iMac site:www.macaddict.com*. Google will list everything it finds, but limits the results to just the MacAddict.com site.



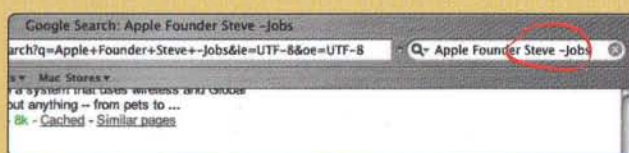
Who needs a search function on your site when you've got Google?

77 Add Google Search to Your Site

Google offers you the option of including a Google entry box on your own Web site. This lets users search your Web site using Google technology (or the user can opt to search the whole Web). See www.google.com/searchcode.html, or check out our how-to, "Add Search to Your Site" (Mar/04, p70) for details.

78 Add or Exclude Keywords

In order to refine Google searches, make use of the plus (+) and minus (-) signs in keyword searches. A plus sign is helpful when you want to include a word that's commonly excluded, as in *Temple +of Doom*. A minus sign excludes results that include the keyword, as in *Apple Founder Steve -Jobs* (which, it so happens, produces pages of links to Woz-mania.)



Use the minus sign to exclude certain results from a Google search (top). Our exclusive search yielded tons of hits on Steve—Wozniak, that is (bottom).

79 Learn Google Shortcuts

Google has many hidden features that work right within the Google search box. Check these out (and see www.google.com/help/features.html for the whole list).

Feature	What to Type	Click Google Search to Get...
Calculator	54*45+5 (any math, actually)	The result
Dictionary	define:word	Links to definitions
File Type	Search term filetype:extension (such as 1099 filetype:pdf)	Results for your search term that match the specified file type
Phone Book	first name, last name, zip code, or last name, zip code	Possible phone-book matches
Special Numbers	package tracking numbers, area codes, vehicle ID numbers	Relevant results (it just knows)
Stock Quotes	stocks: ticker symbol	Recent Yahoo quote
Maps	street address, city, state, or zip	Links to maps
Who Links to	link:site URL	Sites that link to the specified URL



Todd Stauffer is a freelance writer and the author of three dozen books including *How To Do Everything With Your iMac*, Fourth Edition (Osborne/McGraw-Hill). For contributing or inspiring some of these tips, Todd would like to thank his frequent co-author Kirk McElhearn and numerous MacAddict Forum dwellers, including bloomsday, JubileeOR, LuckyJ, Phydeaux, Og, pottymouth, and anyone else he may have missed.



iPod



WARNING

As always, do as we say, not as we do. This procedure is presented purely for infotainment purposes. Do not try this at home. Dismantling your iPod will definitely kill the warranty and might turn your \$249 investment into a paperweight—albeit a colorful anodized-aluminum one.



Step inside
the *MacAddict*
operating room
— **and the**
iPod mini —
to find out what
makes Apple's
new infant tick.

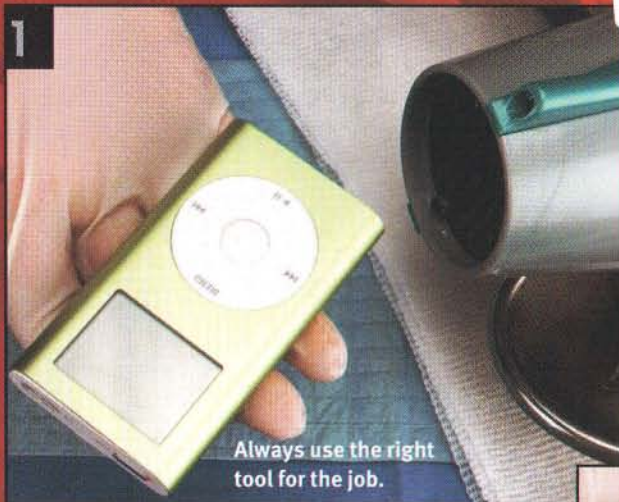
BY NIKO COUCOUVANIS

Autopsy

The iPod mini is sleek and sexy in anodized aluminum—and it's sealed up tight as a drum. Which is why we were more anxious than ever to get our hands on—or rather, into—one.

This month, we set out to learn what Apple has stuffed inside a mini besides a 4GB hard drive. After anesthetizing and scalpel-ing the sucker, we discovered a medical miracle. Inside, there's an eight-hour battery; a luscious little LCD screen; skip-stopping buffer RAM; FireWire and USB conduits; and not one but two tiny processors—and it's all wrapped up in a tiny 0.5-by-3.6-by-2.0-inch package.

iPodAutopsy



Always use the right tool for the job.

1 SCRUBBING IN: Prep for Surgery

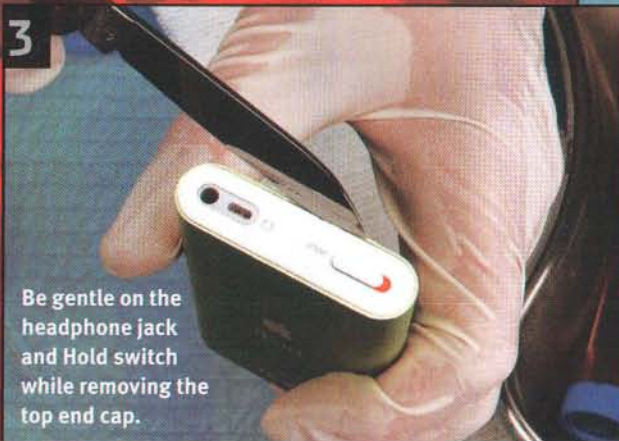
Prep the patient with liberal applications of hot air: 1,500 watts delivered at low velocity via a Conair Ultra SexYouUp. Aimed at the bottom of the mini, a little heat softens the glue that holds the bottom end cap in place.

2 FIRST INCISION: Take Off the Bottom End Cap

After warming up the iPod for a few minutes with a hair dryer, you can sneak a small screwdriver under the edge of the white end cap and gingerly work that piece off. Under the cap is a metal plate securing the guts in place. The plate is wedged in tight, but some careful prying with a small screwdriver sets it free.



Careful prying pops off this plate—watch your eyes, it could land anywhere.



Be gentle on the headphone jack and Hold switch while removing the top end cap.

3 SECOND INCISION: Take Off the Top End Cap

Repeat step 1 on the top end cap, taking extra precautions to protect the Hold switch and headphone jack. When prying, do your best to keep the white piece level with the mini's top; if you wiggle, angle, or bend it too much, you'll stress the connections between these key components and the mini's motherboard. The top part of the Hold switch will separate and come off with the end cap, but the headphone jack will stayput—unless you wiggled the cap wrong.

4 SCREWECTOMY: Remove the Screws

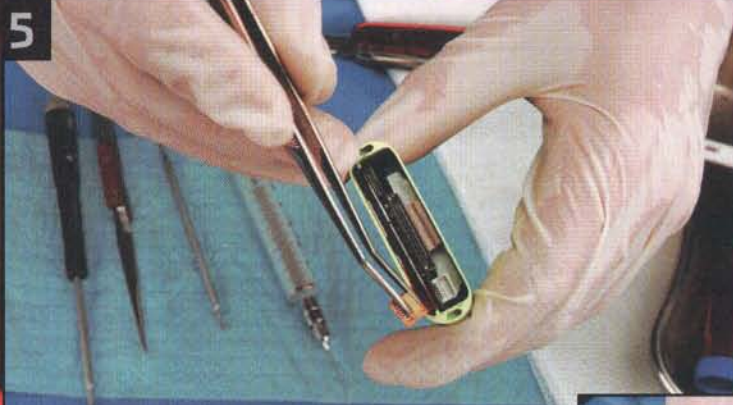
Once you finish removing the top end cap, all you have to do is remove the two microscrews to free the mini's innards. Make sure to stow these screws safely—the sticky side of electrical tape works well—or you may never see them again.



Undoing the screws is the easy part of this operation.

Don't Miss... The mini's Vital Organs

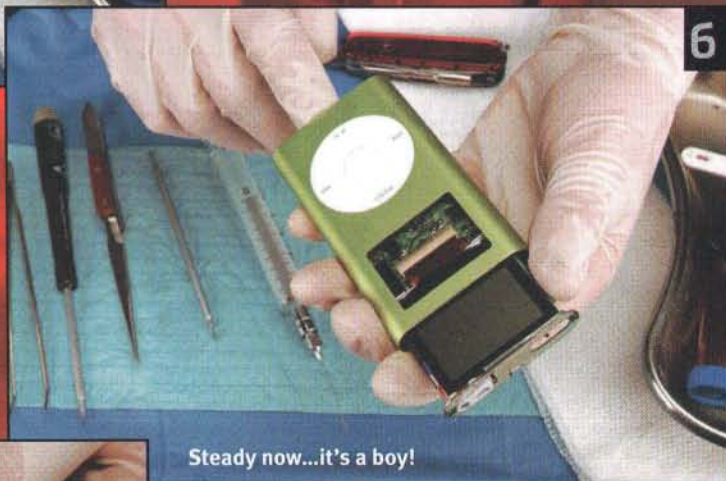
Next Page



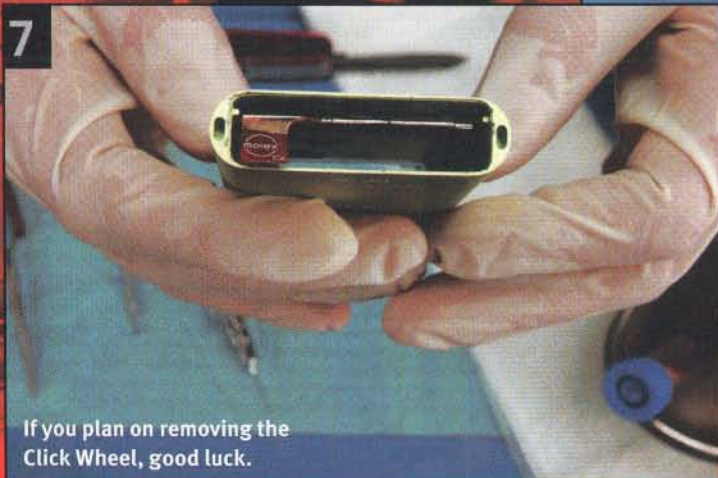
Remember: Pull on the plug, not on the cable.

6 INSIDE-OUTITIS: Push Out the Innards

As they say in obstetrics, after the hard labor, it slides right out. Same goes for the mini. A little push on the posterior is all it takes to remove the mini's inner child—the board, battery, and hard disk—and their connecting subsystem, aka the PCB (printed circuit board) motherboard.



Steady now...it's a boy!



If you plan on removing the Click Wheel, good luck.

7 WHEELECTOMY: Remove the Click Wheel

There's really no reason to remove the Click Wheel unless you plan on completely Frankensteining your mini into, say, an old-fashioned music box. But if you must do so, know that it's tightly wedged into the aluminum frame, and removing it will most likely scratch the wheel's surface and could break it. Always true to our Hippocratic oath, we opted out of the wheelectomy.

The mini's Vital Organs

PRETTY FACE: The Screen

At 138 pixels wide by 110 pixels tall, the mini's smaller-than-its-big-sibling's backlit face is clear, crisp, and protected by a transparent plastic window in the aluminum casing.

PREFRONTAL CORTEX: Samsung K4S561633C-RL75

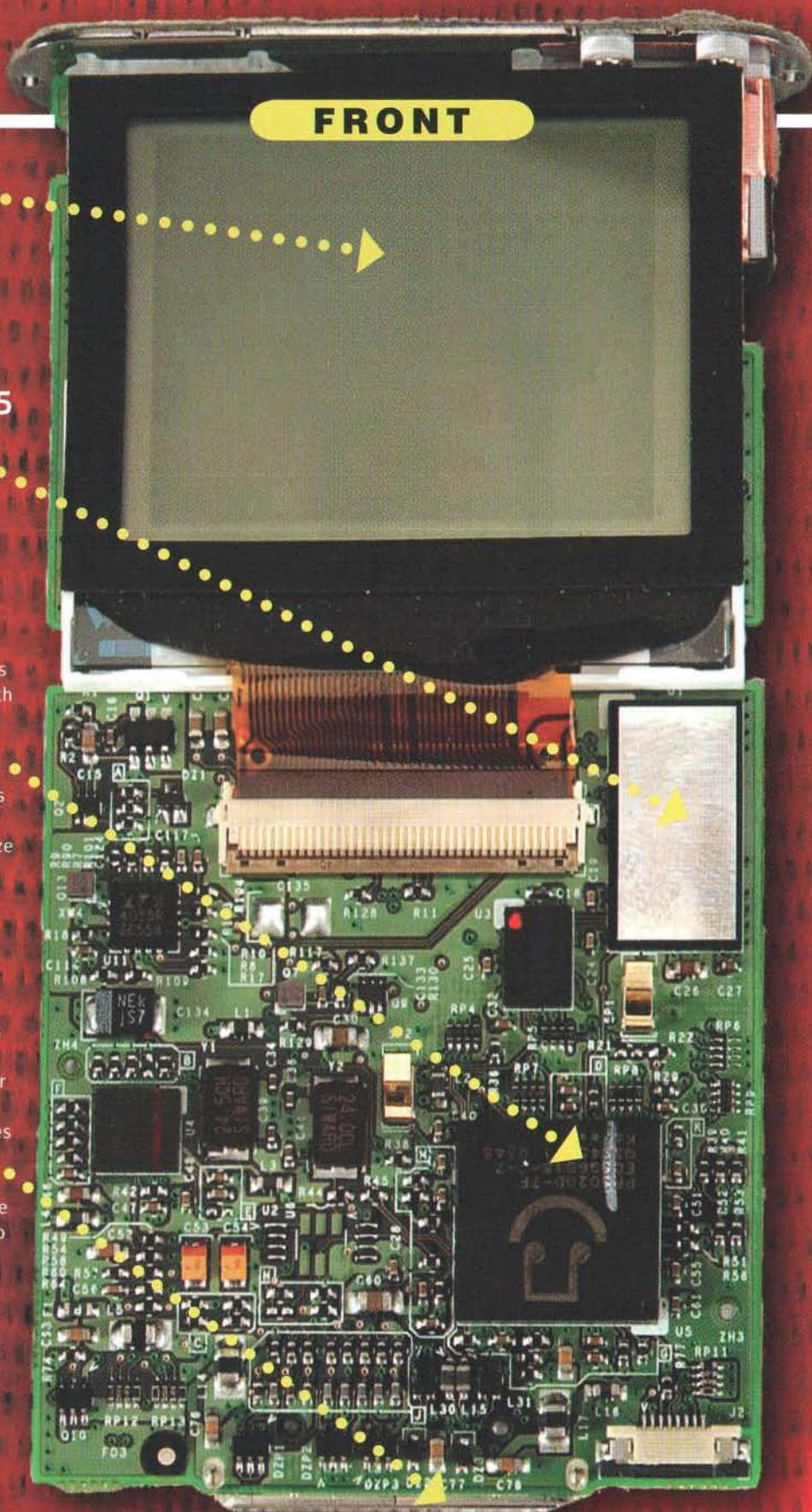
The RAM allows the subject to store 32MB of music in this instant-access buffer. Besides being quick, RAM is also shockproof, so bump-induced hard-drive burps don't cause brain farts and consequent stuttering playback.

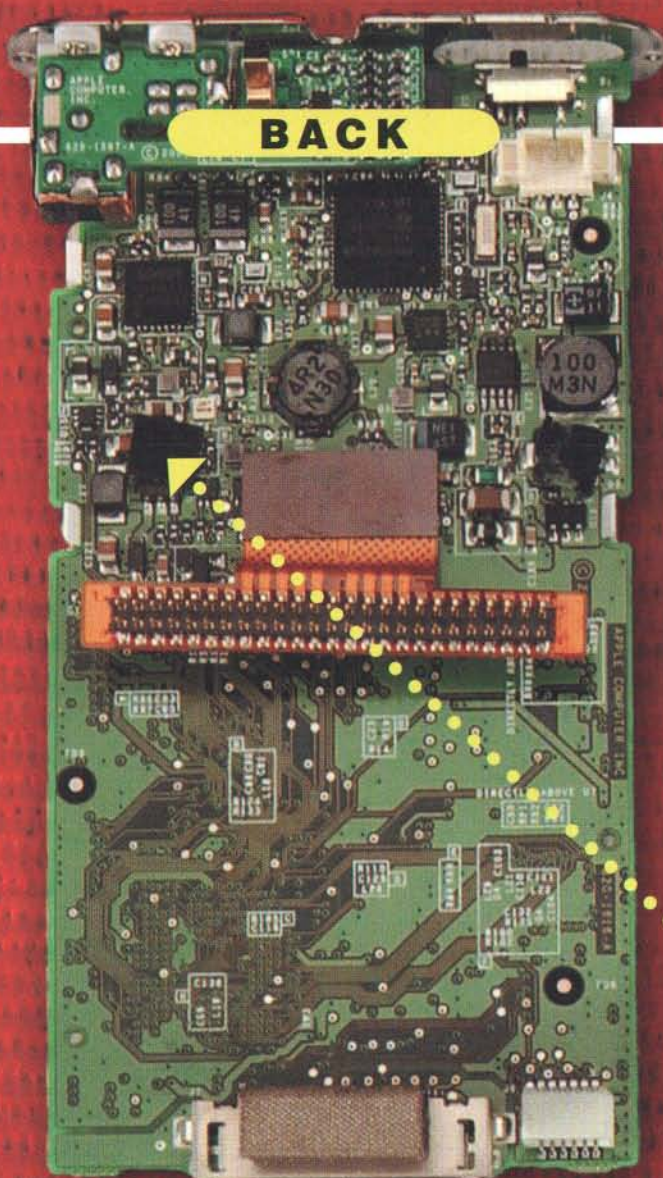
CENTRAL NERVOUS SYSTEM: Portal Player PP5020

Playing Solitaire and shuffling songs takes coordination. The mini keeps its stride with Portal Player's PP5020 SuperIntegration System-On-Chip, packing dual 80MHz ARM 7TDMI processors (the other iPods use only one 133MHz chip). Some see this little dualie rig as a harbinger of things (video things) to come in future pocket-size Apple devices.

DIGESTIVE TRACT: All-in-One I/O

The specimen's most unique trait is its bidirectional digestive tract, which moves data through the Dock Connector. On the inside, a Philips PCF50605HN PMU (power management unit) transfers juice to the battery, while neighboring circuitry bridges FireWire and USB connections to the hard drive for data transfer. There's also a line-out audio signal that goes through the Dock Connector—that's what allows you to connect speakers to your Dock.





BACK



HEART:
Sanyo Li-ion EC003

It's the battery! Don't you wish you could survive for eight hours on sustenance this small?

VOCAL CORDS:
Wolfson Microelectronics WM8731

This wee audio processor turns computer-language audio files—MP3, AAC, and the like—into music for your ears.

CEREBRAL CORTEX:
Hitachi HMS360404D5CF00

The subject's long-term memory lives on a 4GB Hitachi Microdrive so coveted that at press time the manufacturer (www.hitachigst.com) doesn't even sell the device on its Web site. Hitachi's site provides the 4GB specs, but lists 512MB and 1GB models in stock. You can, however, find these drives sold elsewhere online—but not for less than \$400. Granted, that's cheaper than a 4GB CompactFlash card, which runs about \$1,500 from Lexar (www.lexar.com).



When All Else Fails

If all goes wrong and your iPod mini flatlines, at least you have a workable 4GB Microdrive. We slapped ours into a SanDisk Ultra FireWire ImageMate reader (\$49.99, www.sandisk.com) and a USB SmartDisk Flash Media Reader for CompactFlash (\$19.99, www.smartdisk.com), and it mounted on the desktop as if it were still part of the 'Pod. But try as we might—even using Carbon Copy Cloner (donationware, www.bombich.com) to make a copy of another CF card—we couldn't get our Nikon, Olympus, and Canon digital cameras to recognize the drive.



Reviews Editor Niko Koucouvanis would never sacrifice a mini just to hawk its Microdrive on eBay—but he's taking preliminary bids just in case something goes horribly wrong on reassembly.



Mainstream Mac software—some of which you might even have sitting on your shelf—is generating big-screen effects at Industrial Light + Magic.



VAN HELSING: Monsters, Magic, and Macs

BY KRIS FONG

Who says you need a fleet of SGI machines and mega-high-end software to create award-winning visual effects in Hollywood? Certainly not Todd Vaziri, innovative digital artist at Industrial Light + Magic (ILM). For the past two and a half years, Vaziri—who's a longtime Mac advocate and proud *MacAddict* subscriber (and has a stack of issues to prove it)—has crafted spectacular visual effects for the big screen, including for *Pirates of the Caribbean: The Curse of the Black Pearl*, *Hulk*, and *Star Wars: Episode II—Attack of the Clones*. And he did it on a Mac with off-the-shelf software.

We visited Vaziri as he worked his magic on the upcoming action-horror flick *Van Helsing*. As an evil Pygmy Bat (a fierce-looking creature from *Van Helsing*)

eyed our every move, Vaziri showed us how he created part of the opening sequence in *Van Helsing* using nothing more than a Mac, Adobe After Effects, and Adobe Photoshop. If you've got these tools, you too have the power to make a world of make-believe believable.



Interview with Todd Vaziri, featuring exclusive *Van Helsing* footage; Adobe After Effects 6.0 tryout, RE:Flex 2.32 demo, Knoll Light Factory 2 demo, Stitcher 4 trial, iView MediaPro, LaunchBar 3.3, Twixtor 3.2 demo

Tools of the Trade

After winding our way through ILM's maze of office suites, we found Vaziri sitting in the dark (he leaves the lights off to get accurate color on his monitors), listening to iTunes on an iBook at his side. There's also a Power Mac G4 at his feet and an old, idle Indigo iMac behind him (it's his mom's).

Vaziri has been a Mac guy since being initiated into the platform by his parents—his first machine was a Mac Plus, which he held onto until college. As a kid, he became interested in visual effects after seeing movies such as *Poltergeist*, *Back to the Future*, and, of course, *Star Wars*.

"I really wanted to know how these things were made and the magic behind them," he explains. In the beginning, he put MacPaint through its paces before Photoshop expanded what he could do on his Mac. His forays into visual effects began when he started experimenting with matte paintings and Photoshop, and then with After Effects to animate his projects.

For Vaziri, After Effects has become an invaluable tool. "It's surprisingly powerful," he says. "There's a lot of depth to the program, and the cool thing is that it's relatively easy to learn if you know Photoshop." For the uninitiated, After Effects has been the industry standard for creating motion graphics for many years. For example, After Effects is the tool behind many of those complex graphical animation sequences you see at the opening of NFL games, television shows, and news broadcasts.

But beyond typical 2D compositing and animated text and graphics handling, After Effects also features 3D compositing and visual effects tools. On top of that, the Pro version of After Effects handles a particle system, motion tracking, rendering tools, warping tools, and more.

While Linux boxes power much of ILM to generate CG (computer graphics) and do much of the heavy-duty composite work, Macs play an integral role in creating art and pre-visualization composites and sequences. Vaziri, however, has taken Mac compositing beyond just pre-vis—his seamless 3D approach has catapulted his work into the final cut. Vaziri says his process involves "putting together pieces of visual-effects shots, be they blue-screen elements, live-action elements, [or] miniature elements shot on a stage." He adds, "It's pretty much the last step before the shot goes out to film and people see it in the theaters."



Todd Vaziri mugs with a Pygmy Bat.

But compositing involves more than just layering pieces together to create a scene. Vaziri works hard to ensure that each real element (film footage or photographic plate) blends with every computer-generated one to make the audience truly believe that every element exists together in one scene. He refers to this part of his job as "sweetening." It's the last thing that he does to "give it that last bit of reality." Well, as real as you can possibly get when you've got Frankenstein's monster, Dracula, and the Wolf Man battling Wolverine...er, Hugh Jackman...onscreen.

The Art of Making Monsters

Van Helsing opens with a flashback sequence that introduces the various monsters and establishes how they relate to each other (ILM later converted this sequence to black-and-white to give it a classic monster-movie feel). In this scene, a mob of angry, torch-carrying villagers chase Frankenstein's monster into a giant windmill. The villagers are hell bent on destroying the monster and begin throwing torches at the structure to burn it down. As Frankenstein's monster climbs up a few flights of steps, the scene that we're going to dissect begins.

Frankenstein's monster, who's carrying Dr. Frankenstein, emerges

on the windmill's platform, which is flanked by flames. The camera swoops in on a close-up of the monster before it pans 180 degrees and tilts down to show the angry village mob, swarming the windmill three stories below—end of scene.

In reality, the main windmill footage was shot on location

in Prague and lacked any background ambiance or angry villagers—all you see is the film crew and a partial blue screen as the camera pans. The windmill also wasn't built to scale and is in reality much smaller than it looks in the film. For the mob scene, the director shot multiple sequences of a group of torch-equipped extras standing in clumps in various areas of the sound stage. This is where Vaziri took over.

In Theaters

Universal Pictures's *Van Helsing* stars Hugh Jackman as Van Helsing, the legendary vampire hunter summoned to Transylvania to take down Count Dracula, who's on a mission to destroy human civilization and rule the world. The film also features Kate Beckinsale as Anna Valerious, who joins forces with Van Helsing to defeat Dracula in the hopes of freeing her family from a generations-old curse. Things really turn chaotic when some other infamous monsters, including Frankenstein's monster and the Wolf Man, get in the way. Written and directed by Stephen Sommers (*The Mummy*), *Van Helsing* hits theaters May 7.

THE RAW INGREDIENTS

- Main film footage of Frankenstein's monster on the windmill
- Multiple film clips that show small, angry groups of villagers clumped together at various locations on the set

THE TASKS

- Combine all of the villager-group film clips into one large mob scene at the base of the windmill
- Add a sky backdrop to give the setting a dark and gloomy feel
- Add fire, smoke, and explosions around the windmill to play up the intensity of the scene
- Remove the camera lighting from the shot
- Remove the crew and equipment from the shot
- Crop the lens fixture from the shot
- Create the illusion that the windmill platform is taller than it actually is
- Create the illusion of looking into the monster's electrified brain

Round Up the Village People

Vaziri first took all of the footage of the villagers and composited the sequences into multiple layers in After Effects. Because the people were so rigidly grouped in each clip, he cloned small groupings and individuals from different clips and placed them into additional layers to break up the blockiness, making the crowd scene look more natural. He also placed a heavier concentration of people closer to where the windmill would stand and scattered some stragglers toward the back of the mob.

Because the main film footage featured a 180-degree camera pan, Vaziri crafted the 2D crowd layers into a 3D dome shape to



This still is from one of the original angry-villagers shots—hardly a mob scene.

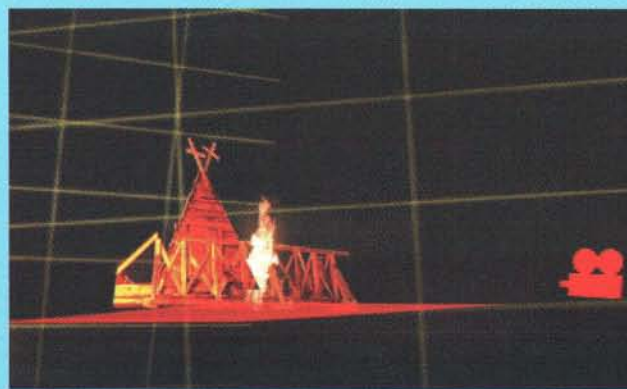


To compensate for the camera pan, Vaziri positioned the 2D elements to form a 3D dome.

avoid getting a parallax effect (picture distortion) when the camera panned around. This also added to the illusion that the crowd was surrounding the windmill. He color-balanced each layer to correct color shifts and adjusted the levels to maintain a consistent exposure across all the layers.

Add Doom and Gloom

Once he filled his ground scene with villagers, Vaziri began to create a realistic environment within the computerized 3D space to encompass the live-action footage. But before he could integrate the live-action footage with the computerized elements, ILM's CG team used its own proprietary matchmove software to track the real camera movements in the main film clip (After Effects Pro also includes motion-tracking features),



Here's the motion-tracked windmill and replicated camera. Audiences see the final scene from the camera's point of view.



Vaziri darkened and gloomified a cloudy sky photo in Photoshop for the backdrop.

and then gave the tracked footage to Vaziri. Matchmoving is a computerized process that lets visual-effects artists track camera movements and key objects within a film sequence. It places a series of points in key areas of the frame, thus allowing artists to bring that exact motion and framing into a virtual environment for reference when compositing a scene. Matchmoving is crucial for achieving realism when integrating live elements and fabricated ones.

The main shot of the windmill is supposed to take place outdoors, but the actual footage lacked a backdrop. Vaziri took a cloudy sky photograph from ILM's Digital Matte library and manipulated it in Photoshop to give it a dark, gloomy appearance. He then brought the photo into After Effects and wrapped the 2D element behind and to the side of the matchmoved windmill to serve as the environment's backdrop.

Where There's Smoke, Add Fire

To create the effect that Frankenstein's monster was being embattled by a raging fire, Vaziri added more pyrotechnics. He combed through ILM's massive stock library of digitized movie files to find various smoke, fire, and explosion elements—we're talking real pyrotechnics footage shot at ILM on a black stage and stored in a library for use in any ILM project.

After finding the right pieces, he used the matchmoved camera-tracking motion to help direct the timing of each element within the scene. In After Effects, he placed two continuous flame elements behind the windmill on each side at different distances (for depth) to add intensity to the flameless film frames. To add realism, he placed a large explosion and a smoke element on the same plane behind the windmill, which



Vaziri placed real fiery pyrotechnics footage behind the windmill in his 3D After Effects composite.



Here's how the flames appeared when combined with the fireless film footage.

enhanced the burning effect. He also sprinkled in a few brief flame flashes to add further frenzy to the environment.

Add Footage, Lose the Crew

To create the illusion that the windmill was taller than the actual filmed structure, Vaziri placed the matchmoved elements (the windmill platform and camera) high above the ground plane, which is where he placed the villagers composites. This extra distance created the illusion that the villagers were standing far below the windmill platform.

Once all the visual effects elements were in place, Vaziri brought in the main film footage in place of the matchmoved elements and removed all the unwanted junk from the shot—the crew and gear that appeared when the camera panned, a fixture visible at the top of the camera frame, camera lighting, and the backdrop of the windmill scene—to reveal the composited elements beneath the layer.

To remove the crew and existing background from the shot, Vaziri created a ton of roto-masks (a process of selecting areas with After Effects' roto-spline tool and then masking the selections to make them transparent) to isolate the foreground elements from the unwanted background stuff, and also pulled blue screens (a method of calculating and extracting the blue-screen elements from the foreground). He got rid of the lens fixture by cropping it out of the scene. To remove the camera lighting, he performed a series of color corrections and levels adjustments in After Effects to eliminate the glow.



Placing matchmoved elements high above the mob made the windmill structure appear taller.

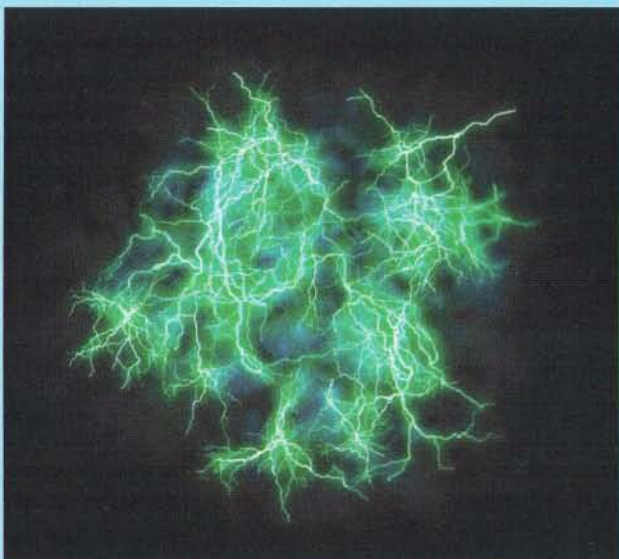


Vaziri created a bunch of roto-masks to mask out the crew and reveal the mob beneath it.

Get Brains—Not Beauty

For the finishing touch, Vaziri created an electrifying effect for Frankenstein's monster's brain, which gets more frenetic as the monster grows more agitated.

ILM's CG team sculpted a 3D brain and several surrounding elements to hold the electricity display, and gave the elements to Vaziri. Using After Effects' built-in Advanced Lightning plug-in, Vaziri painted in a base layer of electricity, distorted the bolts, and added glow effects for realism. For the top of the brain, he created an animation that featured a clustered pattern of rapidly moving lightning. For the peripheral areas of the brain, he designed an animation with multiple bolt source points that connected in random patterns. He then composited the CG elements into Frankenstein's monster's head, layered in the electricity animations, and added other lighting and distortion effects to make the brain effect look real—well, as real as the inside of a reanimated-monster's head can look. ■



Vaziri created this electrifying animation using the Advanced Lightning plug-in.



This is the monster's brain. This is the monster's brain on rabid-villagers alert. Any questions?



Senior Editor Kris Fong was disappointed that Count Chocula, Frank Berry, Boo Berry, and Fruit Brute didn't make the *Van Helsing* cut.

Todd's Toolbox

What do Mac visual-effects masters need in their day-to-day arsenal? Here's what keeps Todd Vaziri happily cranking away on his composites.

HARDWARE

- Apple Dual 1.25GHz Power Mac G4 (\$1,599, www.apple.com) with 1.25GB of RAM and a 120GB hard drive
- 21-inch SGI CRT monitor (discontinued, www.sgi.com)
- Wacom Intuos 6x8 graphics tablet (\$299.99, www.wacom.com)
- Canon PowerShot G2 4-megapixel digital camera (discontinued, www.usa.canon.com)

SOFTWARE

- Apple Mac OS 10.2
- Adobe After Effects 6 (\$699 standard or \$999 pro, www.adobe.com)
- Adobe Photoshop 7 (\$649)
- Pinnacle Systems Commotion 4 (\$499.99, www.pinnaclesys.com)
- RE:Vision Effects RE:Flex (AE plug-in, \$580, www.revisionfx.com)
- RE:Vision Effects Twixtor (AE plug-in, \$329 regular or \$595 pro)
- Red Giant Software Knoll Light Factory (AE plug-in, \$395, www.redgiantsoftware.com)
- Realviz Stitcher (\$499, www.realviz.com)
- iView Multimedia MediaPro (\$160, www.iview-multimedia.com)
- Objective Development LaunchBar ("awesome program," says Vaziri; \$19.95, www.obdev.at)

STUFF THAT KEEPS HIM SANE

- Apple 12-inch iBook G3 (houses all his music)
- Apple iPod (\$299 to \$499)
- Lots of *Futurama* DVDs

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better living through smarter shopping

Quick! What's got six strings, two pickups, and full MIDI support? Why, the iGuitar (pictured here), of course—and it plays and sounds as good as it looks. We also pleased (and punished) our ears this month with three desktop speaker systems, a totally gonzo contraption for using an iPod in a car, audio-synthesizer software that almost made our brains collectively explode, an ornery MP3 player, and a groovy little pouch for the iPod mini. We also got a real treat in Unreal Tournament 2004, which we'll use to test some honking-big speakers next time.

- 60 AutoScrubber security utility
- 54 Carrara 3D Basics entry-level 3D software
- 52 Coolpix 8700 8-megapixel camera
- 51 Gmini 220 photo-storing MP3 player
- 60 HomePod wireless MP3 music streamer
- 46 iGuitar2.13 MIDI-capable guitar
- 50 I-Trigue L3450 powered speakers and subwoofer
- 58 Learn to Play Keyboard Bundle MIDI keyboard with instructional CD
- 55 Mercury Extreme processor upgrade G4/1.467-1.5GHz
- 60 Mini SportSuit Safari iPod mini case
- 50 MX5021 powered speakers and subwoofer
- 53 NoteBook 1.2 digital diary
- 53 NoteTaker 1.8 digital diary
- 47 Perfection 4870 Photo transparency and opaque-media scanner
- 54 pxi SmartScale 1.02 image-scaling plug-in
- 56 Reaktor 4 audio synthesizer
- 50 SoundSticks II powered speakers and subwoofer
- 51 The Sims Makin' Magic expansion pack
- 58 TransPod FM iPod auto kit
- 48 Unreal Tournament 2004 first-person shooter
- 59 You Synchronize 2.01 file-syncing utility

PLUS: TheHotList

62 The best of the best from recent reviews.



X Compatible with Mac OS X or later.
9 Compatible with Mac OS 9 or earlier.



We'd spend our own hard-earned money on this product.

iGuitar2.13

BAD-ASS MIDI-CAPABLE GUITAR

Ingenuous? Inspired? Incredibly expensive? We can think of other words that the "i" in iGuitar could stand for, but according to Brian Moore of Brian Moore Guitars, "The 'i' stands for fun!" Although we question his orthography, he's right.

When it comes to recording digital music, the iGuitar2.13 does for guitarists what a MIDI synthesizer does for keyboard players. Not only can you play the instrument through a guitar amp, but also you can tether it to a 13-pin MIDI interface and play virtually any software instrument or sample from its strings.

The guitar is solidly built from mahogany with a quilted maple top and rosewood fretboard. If you're familiar with the Gibson Les Paul, the iGuitar's neck, body style, and weight are similar, but its contoured body makes resting our forearm on it as we play a lot more comfy. The guitar is stocked with two Seymour Duncan pickups (one Alnico APH-1N at the neck, one JB at the bridge), a piezo bridge for acoustic sounds, a standard instrument jack, and a 13-pin synth system and socket. One minor annoyance is that the D-string tuner sits alongside the top three strings' tuners instead of riding shotgun with the bottom two (the traditional layout), which forced us to think every time we needed a tune-up.

Plugged into our Marshall amp, we could've rocked on forever—but we had a deadline. So we attached the guitar to a Roland GI-20, plugged the interface into our Mac, and recorded tracks in GarageBand using Software Instruments and sounds from a hardware MIDI sound module. Though some instrument sounds were impossible to play on the guitar (forget drums), we adapted our playing style to create realistic phrasing for each instrument we selected, including a violin (slow, single-note picks worked the best), saxophone (which responded well to faster playing), bass (we had to play harder to keep notes consistent), acoustic 12-string guitar (which required a lot of clean-up editing of extraneous MIDI notes—no thanks to the overtones), and piano.

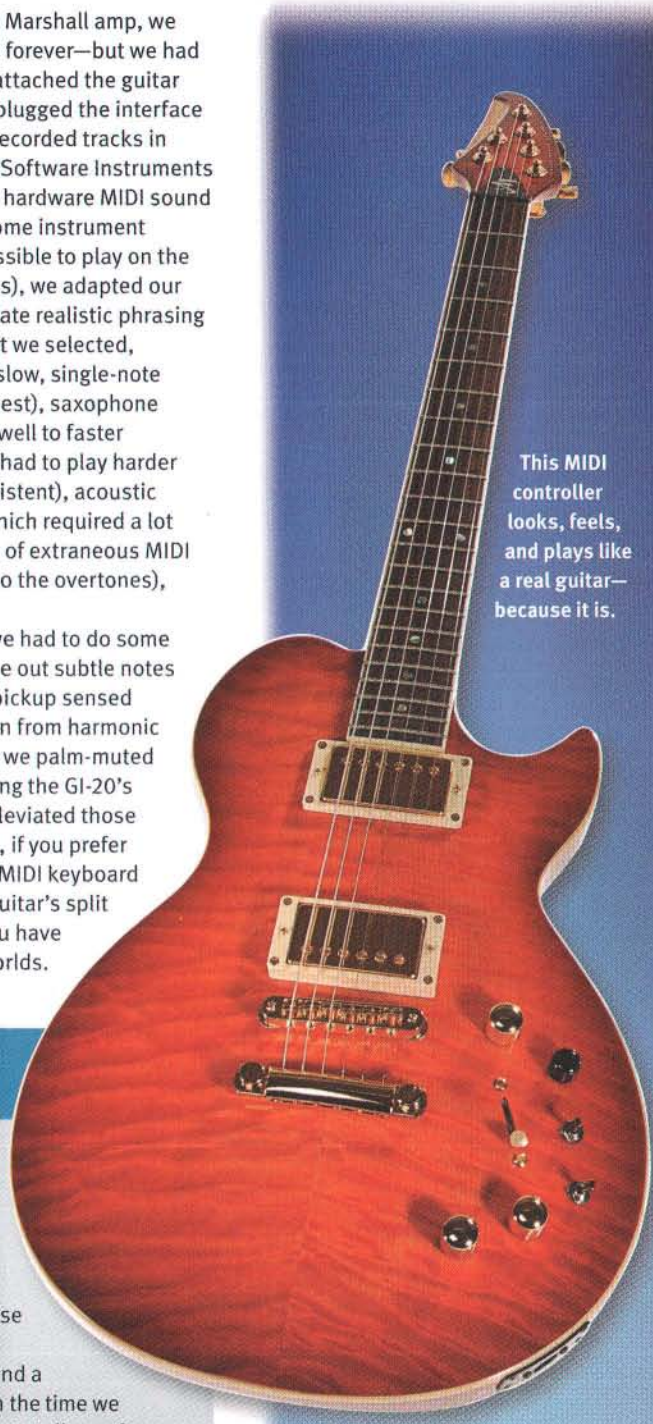
Unfortunately, we had to do some MIDI editing to wipe out subtle notes created when the pickup sensed string reverberation from harmonic overtones or when we palm-muted strings, but resetting the GI-20's input sensitivity alleviated those problems. All in all, if you prefer playing guitar to a MIDI keyboard synthesizer, the iGuitar's split personality lets you have the best of both worlds.

—Kris Fong

This MIDI controller looks, feels, and plays like a real guitar—because it is.

ROLAND GI-20—NO SLOUCH OF A SIDEMAN

Although the iGuitar features a pickup that senses and tracks notes when played, that information needs help converting to MIDI data. Roland's GI-20 GK-MIDI Interface (\$395, www.rolandus.com) to the rescue—this device turns the iGuitar from a mere instrument to full-fledged MIDI controller with a single 13-pin connection. The GI-20 not only tethers an iGuitar (or iBass—yes, Brian Moore Guitars makes those too) to a Mac, it also features a MIDI In and Out to connect other MIDI gear, ports to connect a footswitch and expression pedal, and a handy built-in tuner. The GI-20 introduced some latency between the time we plucked a string to the instant we heard it, but it wasn't enough to totally goof us up.



PHOTOGRAPH BY MARK WADEO



COMPANY: Brian Moore Guitars
CONTACT: 800-795-7529,
www.brianmooreguitars.com
PRICE: \$1,895

REQUIREMENTS: For MIDI control: Power Mac; Mac OS 8.5 or later; USB port; 13-pin guitar/MIDI interface, such as the Roland GI-20 GK-MIDI Interface (\$395, www.roland.com)

GOOD NEWS: Solidly built. Great feel. Gorgeous looks. Works as standard guitar or MIDI controller. Includes dual Seymour Duncan pickups.
BAD NEWS: Expensive. Weird D-string tuner position.

MacAddict RATED
●●●●●
GREAT

This righteous transparency scanner also handles full-size paper documents.



PHOTOGRAPH BY MARK MADEO

Perfection 4870 Photo

CAPABLE TRANSPARENCY AND OPAQUE-MEDIA SCANNER

Scanner manufacturers such as Epson who develop their own drivers have been a few steps behind Apple's latest ever since Mac OS X first appeared. The Perfection 4870 Photo continues the trend. Hardware-wise, it's an awesome scanner, but it's hampered by a flaky driver prone to occasional fits of amnesia—it would tease us with an apparently active progress bar, but never complete the scan.

The 4870 justifies its hefty price tag with dual FireWire/USB 2.0 connectivity, 4,800-by-9,600-dpi optical resolution (plus an insane 12,800 by 12,800 resolution with software interpolation), 48-bit color depth, and an integrated transparency adapter. But unlike many scanners claiming transparency support, this one ships with adapter frames for more formats than you probably need—35mm slides and negatives, 2.5-by-2.5-inch medium format, and even the elusive 4-by-5-inch large format. Bonus: The

frames are gentle on your film, so you won't mangle transparencies.

This scanner produces awesome results—and in good time: scanning 8 by 10 photos and documents at the default 300-dpi resolution took about 30 seconds. The results looked great, with crisp lines, accurate colors, and sharp detail in the shadows. When we loaded the plate with color 35mm negatives, we scanned ten frames at 1,200 dpi in just under 15 minutes—again, with terrific results. Epson's driver did a great job of isolating the individual frames on strips of 35mm film, previewing them, and scanning each into its own document—

but with a couple of hitches. For one, thumbnail previews don't work—the Preview window displays individually cropped frames that don't match the adapter frames or your images. Toggling the Preview button to Normal fixed that annoyance. One annoyance we couldn't fix was the scanner's disappearing act, especially on long-haul jobs, such as scanning a plateful of slides or a 48-bit color image at 9,600 dpi—too often we waited and waited, only to cancel out the job after a few hours.

The 4870 uses Digital ICE technology for correcting dust, fingerprints, scratches, and other imperfections. To our surprise, ICE worked very well in most cases (see "Nice Ice, Baby," below), but it exponentially increased the scanning time—for instance, from 30 seconds to 8 minutes. The results are generally worth the time, at least for color slide scans, where the technology works surprisingly well.

Epson bundles the 4870 with software aplenty: ABBYY FineReader Sprint for OCR; Photoshop Elements 2.0 for image manipulation and to host the plug-in drivers; and SilverFast SE 6, a capable scanner driver that, like EpsonScan, works as a Photoshop plug-in or as a stand-alone app—it's generally more reliable than EpsonScan, but lacks the Digital ICE technology.

Our only real complaint is with Epson's driver, which we'll learn to live with—or replace—in exchange for the ability to use this scanner.

—Niko Coucouvanis

NICE ICE, BABY

Digital ICE (image correction and enhancement) technology uses software on your Mac in conjunction with the scanner's built-in ICE capabilities to clean slides and photos of the various debris those media tend to collect: mainly dust, scratches, and fingerprints. ICE works best on color slides, though it adds significant contrast to photo scans and doesn't work at all on black-and-whites.



We ICed the dust and scratches right off this color negative.



COMPANY: Epson
CONTACT: 800-463-7766,
www.epson.com
PRICE: \$449

REQUIREMENTS: USB- or FireWire-equipped Mac, Mac OS 8.6 or 10.2 or later, 128MB RAM (256MB recommended), 300MB disk space (800MB recommended)

GOOD NEWS: Fully respects transparencies. Includes software that can save you from Epson's schizoid driver.
BAD NEWS: Flaky driver software.

MacAddict RATED
★★★★★
GREAT

Unreal Tournament 2004

PRIME CANDIDATE FOR BEST FIRST-PERSON SHOOTER EVER

Brilliant! That's the one-word report on Unreal Tournament 2004. The best just got better—again. UT03 bowled us over last year (*Reviews*, Oct/03, p44), and Halo (\$49.99, www.macsoftgames.com) raised the bar shortly thereafter (*Reviews*, Mar/04, p38) by introducing drivable vehicles. UT04, however, blows them both away. Improvements include tons of new maps and two new game modes, Assault and Onslaught, which introduce new strategic and goal-based elements. Assault and Onslaught are also the only game modes that support UT's much-ballyhooed new vehicles—so if you were hoping to get your road rage on in a freeform deathmatch game, you're out of luck.

The only other potential problem with UT04 is your Mac—this is the most demanding game we've ever seen.



Now that's detail! With a good set of speakers, you can even hear the grass rustle underfoot.

It installs from a DVD and requires a whopping 5.7GB of hard drive space. The upside is that if your Mac is up to modern snuff, the game plays like a dream. Our single processor 1.8GHz G5 with an ATI Radeon 9800 Pro video card (Apple's high-end build-to-order offering) and 2GB of RAM ate this game for breakfast: We got silky-smooth performance with all the graphic settings—resolution, weather effects,

detail, and a whole lot more—cranked up to their highest levels. When we tried

it with the 1.8GHz G5's stock card (the nVidia GeForce FX 5200 Ultra), the action was a little chunky at the high settings but completely playable at the defaults. Farther down the line, a 1.25GHz PowerBook G4 with 512MB of RAM handled the game adequately, only choking at infrequent and irregular intervals. Even our relatively wimpy 1GHz eMac with

256MB RAM kept pace—but we wouldn't recommend going any lower down the Mac food chain.

All of our favorite old weapons are still around, some with slight modifications. The basic Assault Rifle is unchanged, but you can now use two of them simultaneously if you happen to pick one up from a freshly ventilated foe.

The Sniper Rifle that we missed so sorely in UT03 is back, complete with its 10x zoom scope—but lingering smoke from the blast now clouds up your scope view if you don't quickly zoom back out after shooting, which can be pretty nerve-wracking. The Link Gun, Flak Canon, Mini Gun, Shock Rifle, Biorifle, Rocket Launcher, Lightning Gun, Ion Cannon, and Redeemer are essentially unchanged and as endearing as ever.

The new game modes break tradition from the old UT free-for-all deathmatch. One of the new modes is a retrofit of Assault, a storm-the-hill-type mode last seen in the original Unreal Tournament



This sourpuss is one of many UT gladiators waiting to kick your ass.

of early 2000, in which two teams take turns defending against the other's assault; whichever team completes the objective in the shortest time wins. The new Assault recreates a scenario out of UT history—one of six actually, depending on which Assault map you choose. For example, the Mothership map recreates a historic battle in which humans destroyed an invading Skaarj mothership at the last possible moment while aliens prepared to take over Earth. It's epic and every bit as over-the-top as we've come to expect from the UT franchise—and we mean that in the best way. Overall, the game feels less like a pro wrestling/monster-truck rally than UT03 did, mainly because the ridiculous opening movie of UT gladiators entering an arena full of vocal yokel fans is now gone.

The other new mode, Onslaught,



COMPANY: MacSoft
CONTACT: 865-512-9111,
www.macsoftgames.com
PRICE: \$39.95

REQUIREMENTS: 933MHz G4 or faster, 256MB
RAM, 32MB AGP video card, 5.7GB disk space,
DVD drive

GOOD NEWS: The best keeps getting better. New
vehicles and weapons, 45 new maps.

BAD NEWS: New AI is sometimes pretty dumb.
Requires a massively powerful Mac.

MacAddict RATED
●●●●●
AWESOME

is the earth-shakingly new part of UT. Onslaught falls even farther from the traditional UT-deathmatch tree, adding more team strategy, more goal-driven action, and new weapons to the mix. Two teams each defend a power center called the PowerCore on a map containing several PowerNodes that feed the PowerCores; the goal is to control enough PowerNodes to link up to the enemy core (think connect-the-dots) and destroy it. As you might guess, team tactics and communication are key elements of winning.

Assault and Onslaught are where the new vehicles come into play. The granddaddy of all these vehicles, the Leviathan, seats five, sports its own portable ion canon, and can destroy anything. Other driveables include the Scorpion—a one-man jeep you control with direction keys, so you can mouse-aim the onboard weapon in a different direction than the direction you're driving. The Scorpion doesn't drive quite as smoothly as Halo's Warthog jeep, but since you can't fire the Warthog's weapon from the driver's seat, we prefer the Scorpion. UT's new flying vehicles—the hovercraft-like Manta and the free-flying Raptor—take some getting used to but are great additions to the game. Again, we wish the vehicles were available in all the game modes.

You can, however, use the new antivehicle weapons in any game mode—just enable Onslaught Weapons in the Mutators screen of the game settings. The new Mine Layer rivals the Flak Cannon as our favorite weapon; it deploys autonomous Spider Mines—pop one off in the general direction of a foe, and the mine makes a beeline for him. Leave a few mines in a hallway, and your enemies won't even have time to trip over them. Other new toys include the

AVRIL (antivehicle rocket launcher), which shoots

homing missiles that home in only on vehicles, and not foot soldiers—although a missile can wipe those poor suckers out if it hits 'em. There's also a Grenade Launcher that, well, launches grenades. Another cool thing about Onslaught and Assault is that you don't have to scrounge for weapons—new weapons lockers let you load up a whole arsenal at once.

UT04's single-player mode is radically different from UT03's, due to a new scoring system that makes working your way through this game mode more difficult—or at least more grueling. As in the past, you enter the tournament alone and must complete a series of qualifying rounds to win the chance to assemble a team and proceed. The twist is that this mode is now based on a point/credit system. You earn credits for every match you win—but you have pay an entry fee to get in, and regardless of whether you win or lose, you have to pay your teammates and cough up dough to heal any injuries they incur during battle. In UT03, losing a tournament match just meant you'd have to fight that match—repeatedly if necessary—until you emerged victorious. This time around, a couple of consecutive losses can clear your coffers and send you back down the tournament ladder; keep losing, and you face bankruptcy. Each time that this happened to us, however, the game surprised us by announcing that “anonymous fans” would bail us out by paying our way into matches. The new scoring setup may be frustrating, but it makes winning that much more satisfying.

One small annoyance in the single-player mode: The Mac-controlled enemy bots are occasionally narcoleptic somnambulists—on several occasions we literally bumped into an apparently lost enemy while we were in the heat of battle with one or more of his compadres. Our own Mac-controlled teammates were also prone to lollygagging—but they were always responsive when given orders. One word of advice to keep in mind as you play the single-player game: When a teammate says “I've got your

Kitty-kitty? Not! These Spider Mines will pounce and blow you to bits before you know it.



You can do all kinds of damage with the new Leviathan's onboard ion cannon.



Just aim...



...and shoot!



Now, who brought the marshmallows?

back,” he doesn't mean he's covering your rear, as you might expect—usually it means you're about to get ambushed. Apparently your teammate wants to help you fight the attackers, not fend them off for you.

Ultimately, network play is what UT is all about—the single-player mode is merely practice for the endless line of competitors waiting for you in online games. We still enjoy the past two iterations of Unreal Tournament—and now we can't recommend UT 2004 highly enough.—*Niko Coucouvanis*

I-Trigue L3450, SoundSticks II, MX5021

POTENT POWERED SPEAKERS AND SUBWOOFERS

Now that Apple is all about audio, upgrading your Mac's speakers is more important than ever. And judging by the latest crop of 2.1 speaker sets, finding one that fits your needs is easy. In this case, the MX5021's brute force; the SoundSticks II's understated (and underpowered) geek-chic; and the I-Trigue L3450's practicality would all please us under varying circumstances.

To give each pair a fair chance, we listened to both original CDs and MP3 tracks of differing genres: Jazzanova's heavy-bass hip-hop "Coffee Talk," Stereolab's hard-rock "Noise of the Carpet," and a delicate orchestral rendition of Bach's "Air on the G String."

At \$70 less than its competitors, Creative's I-Trigue L3450 makes a compact and eye-pleasing companion to the current iBook series. We were pleasantly surprised by the I-Trigue's strong, solid bass—a product of its wooden subwoofer cabinet and its 30W RMS power rating. Although the I-Trigue's small tweeters—two in each 9W speaker—produce a weak high end, Creative compensates by integrating a mid-range Lateral Firing Transducer into the side of each speaker housing. While not entirely effective, these side-firing speakers help fill out the sound. We appreciate the I-Trigue's wired remote, but have no use for the proprietary on-remote M-Port, which can only work with M-Port-equipped MP3 players such as Creative's Nomad MuVo NX.

Like the original SoundSticks, Harman/Kardon's SoundSticks II fare better in form than function. Their look is essentially unchanged, but instead of connecting via USB, this

I-Trigue L3450



SoundSticks II



MX5021



The I-Trigue L3450 (top), SoundSticks II (center), and MX5021 (bottom)—one of these speaker sets is just right for your desktop or dormitory audio needs.

year's model connects to your Mac via a standard 1/8-inch stereo minijack—so SoundSticks finally work with iPods. The relatively weak 20-watt subwoofer doesn't get much reverberant help from its plastic case, but it sports a pretty, nightclub-esque glowing blue light. The sleek satellites come packed with four speakers apiece, providing crisp, detailed highs, but after sixty seconds of listening, the piercing high notes of Bach's "Air" almost had our ears bleeding, whereas the hearty bass of "Coffee Talk" came out as crackles. The set is functionally stylish, however, with touch-sensitive volume buttons and angle-adjustable satellites.

The powerhouse of the group, boasting a total RMS rating of a whopping 90W, is Altec Lansing's MX5021. This tough-looking, THX-certified setup kicks harder bass, tweets cleaner highs, and produces an all-around fuller sound than both of its competitors. Even at low volumes, this set was able to fill a room with rich sound; tested in the coziness of a medium-sized San Francisco bedroom, we successfully woke up (and pissed off) flatmates every night for a week at even the most humble volumes. For all its audible brawn, however, the MX5021 is physically awkward: The huge subwoofer stands more than 15 inches tall, and the slender, 10.2-inch-high satellites tend to fall over when not securely attached to desk or wall.

When it comes to speakers, we're more concerned with sound than style, so we recommend the MX5021 and suggest that you use the included wall mounts.—Noah Tsutsui

I-Trigue L3450

COMPANY: Creative
CONTACT: 408-428-6600, www.creative.com
PRICE: \$129.99
REQUIREMENTS: Audio source with minijack.

GOOD NEWS: Best bang-to-buck ratio.

Capable and compact.

BAD NEWS: Some music still sounds tinny.



SoundSticks II

COMPANY: Harman Multimedia
CONTACT: 877-266-6202, www.harmanmultimedia.com
PRICE: \$199.95
REQUIREMENTS: Audio source with minijack.

GOOD NEWS: No longer USB-connected.

Stylish design.

BAD NEWS: Weak sound. Nearly baseless.



MX5021

COMPANY: Altec Lansing
CONTACT: 800-258-3288, www.alteclansing.com
PRICE: \$199.95
REQUIREMENTS: Audio source with minijack.

GOOD NEWS: Big. Loud. Mounting brackets

included.

BAD NEWS: Towers topple easily.



Gmini 220

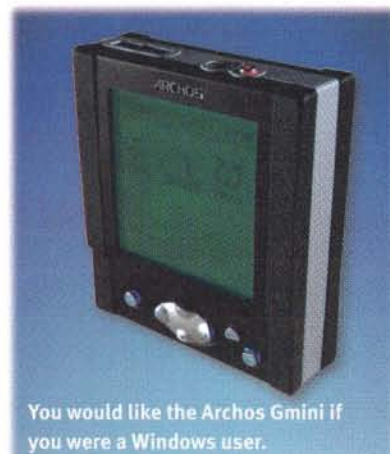
LAME PHOTO-STORING MP3 PLAYER

The Archos Gmini 220 MP3 player, hard drive, and photo-storage device looks great on paper, but it's simply not ready for the Mac. While it mounts driver-free in Mac OS X as an external USB 1.1/2.0 drive, the Gmini's LCD displays photos poorly, and its sad excuse for iTunes support makes managing more than 50 tunes an exercise in frustration.

This 3-by-2.5-inch USB device weighs only 6 ounces and stores 20GB of data. You view photos on a weakly backlit grayscale LCD. Its MP3 player supports MP3, WAV, and WMA files, but not iTunes AAC files. The four-way button interface at the bottom of the device

resembles that of a PDA. A microphone up top records voice and line-in audio, and a rubber cover pulls out to reveal a CompactFlash card reader.

As a photo-storage device, JPEGs transferred smoothly from a Type I CompactFlash card (CF Type II doesn't fit). The abysmal quality of the LCD, however, allows you to identify pictures—barely—but you can hardly enjoy them, as they're a murky blue-black. As an MP3 player, the Gmini also fails miserably. The provided iTunes plug-in lets you browse the tracks on a connected Gmini but not make Playlists or transfer songs. Instead, you drag your MP3s from the Finder and scroll through



You would like the Archos Gmini if you were a Windows user.

PHOTOGRAPH BY MARK MADEO

them on the Gmini to listen to them. When you finally find the tunes, however, the sound quality is crisp, full, and loud.

Photographers looking for a portable photo-storage device will dig the Gmini, but the rest of us will avoid it.

—Narasu Rebbapragada

9

COMPANY: Archos
CONTACT: 949 609-1483,
www.archos.com
PRICE: \$349.95

REQUIREMENTS: Mac OS 9.2 or 10.2.4
or later, USB manager 1.2 or later

GOOD NEWS: Compact 20GB hard drive.
BAD NEWS: Piss-poor iTunes support. Stone-Age
interface. Lousy LCD.

MacAddict RATED
LOUSY

The Sims Makin' Magic

ANOTHER GREAT SIMS EXPANSION PACK

For a little while, Sims expansion packs were getting to be more tiresome than *American Pie* sequels. But not this one—Makin' Magic ranks up there with *Unleashed* as one of the best.

The premise of Makin' Magic is to acquire the ingredients you need to cast a variety of spells that will help you get ahead in your Sim life. For instance, one spell picks up all the dishes for you. Another makes any Sim fall instantly in love with you. Discovering and casting the different spells is addictive.

The first time you launch the game after installing Makin' Magic, a box of magic goodies appears, including a book of spells, some ingredients, and a portal to Magic Town—you'll have to go there for more ingredients. The magic portal is a great time-saver compared to previous games, where you had to call a cab to take you elsewhere.

Once in Magic Town, your Sims can buy and barter for ingredients, but first they need to earn MagiCoins by performing acts of magic and other tasks. Sims can also

approach different vendors and perform chores for them in return for ingredients. And you can buy items that will help you make ingredients in your home—a butter churn or spinning wheel, for example.

Sadly, the same problems that plagued previous Sim games still exist in this one. Its performance is abysmal, even on our Dual 1.25GHz G4 with 512MB of RAM. Random bugs also popped up here and there—for example, our gardener got caught in an endless loop watering our vegetables, and the only way to save her was to delete part of the garden. But we're willing to overlook the problems, given how freakily fun this game is.—Cathy Lu



Now your Sims can raise the dead to raise some cash.



9

COMPANY: Aspyr
CONTACT: 512-708-8100,
www.aspyr.com
PRICE: \$29.99

REQUIREMENTS: 500MHz G3 or faster, Mac OS
9.2.2 or 10.1 or later, 192MB RAM (additional 128MB
for OS X), 1.3GB disk space, 4MB VRAM (8MB
recommended), QuickTime 4.1.2 or later

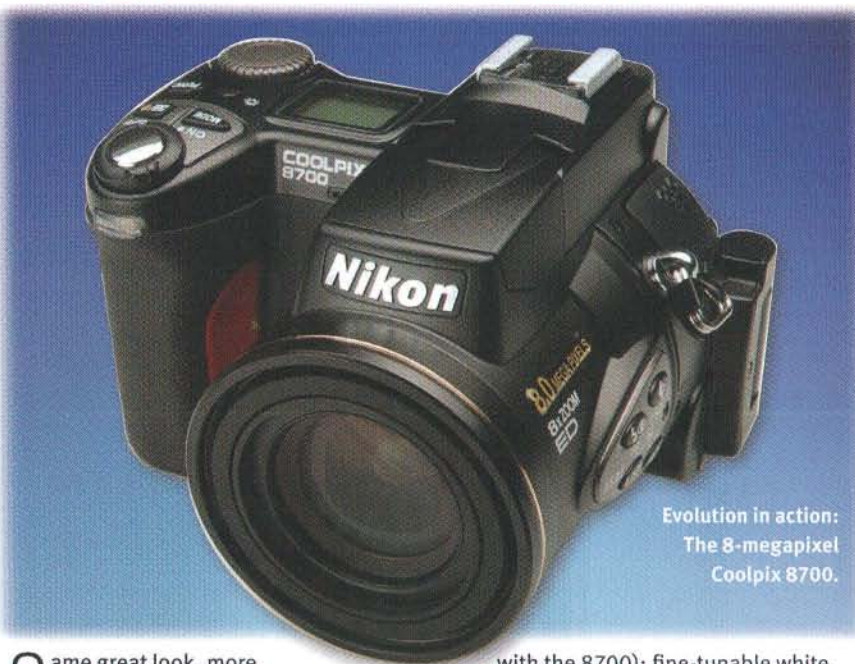
GOOD NEWS: New goals and gameplay. Get help
managing your Sims' homes and moods.
BAD NEWS: Sluggish performance in some areas.
Seems buggier than before.

MacAddict RATED
GREAT

Coolpix 8700

WELL-MANNERED 8-MEGAPIXEL CAMERA

PHOTOGRAPH BY MARK MADEO



Evolution in action:
The 8-megapixel
Coolpix 8700.

Same great look, more filling. It's easy to mistake the Nikon Coolpix 8700 for its older sibling—the 5-megapixel Coolpix 5700—but with an 8-megapixel CCD (3,264 by 2,448 resolution), the 8700 can flex some major muscle. Like the 5700, the 8700 is built from lightweight-but-durable magnesium alloy and features an 8x optical zoom (equivalent to a 35mm to 280mm lens); a highly grippable handgrip; CompactFlash I/II and Microdrive support (no media ships

with the 8700); fine-tunable white balance settings; support for RAW (NEF), TIFF, and JPEG formats; fine-tunable flash; and movie mode. It ships with a rechargeable Li-Ion battery (which requires several charging cycles before it's capable of its full capacity), charger, USB cable, and Nikon View software.

The 8700 also has some welcome enhancements and improvements over its predecessor, including an AF-assist illuminator (for focusing in low light), 12 scene modes (Copy, Panorama Assist,

and the usual suspects), more movie modes (up to 640 by 480 video at 30 fps), real-time histogram display, ISO 50 support, 1/8,000-second maximum shutter speed, and other upgrades.

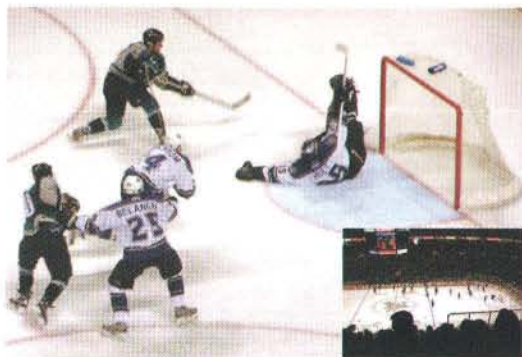
We loved how the camera felt in our small hands—large hands may find the grip a bit small. Instead of navigating menus, most functions are accessible from the external buttons and dial—we could call up different features from each button, depending on how many times we pressed it and whether or not we turned the dial as we pressed. We normally hate, hate, hate electronic viewfinders (wee LCDs stuck in camera eyecups), but were truly amazed at how clear the 8700's electronic viewfinder was. We wish Nikon used this same resolution for the camera's LCD monitor, which displayed dancing pixels in dark areas and was hard to see in sunlight.

In use, the 8700 produced excellent, well-balanced exposures as long as we were in the driver's seat. In Programmed Auto mode, the camera produced good exposures, though it had a tendency to overexpose compositions that displayed extreme contrast. We liked the immediacy and ease of having scene modes at our fingertips—especially Panorama Assist—but got better results working the manual controls to fend off a few picture spoilers, namely some minor purple fringing.

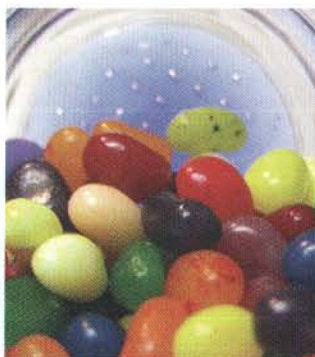
The camera has superb macro capabilities, which allowed us to focus on objects about an inch away from the lens. Color was accurate from snap-to-snap. At ISO 100, our pics were clean—even in long-exposure shots. At ISO 200, we captured a good number of belligerent pixels in indoor shots. The camera tops out at ISO 400, so trying to freeze action in low light was difficult—and photos shot at this sensitivity were fairly noisy for the most part.

Unfortunately, the slow write speeds left us waiting—a larger image buffer would do wonders for this camera. Still, it's a nag we're willing to overlook for the gratifying end result.—Kris Fong

PHOTOGRAPH BY KRIS FONG



With 8x optical plus 2x digital zoom, we captured this Nils Ekman goal from up in the cheap seats (inset).



These colorful beans are carbon copies of the actual colors.



COMPANY: Nikon
CONTACT: 800-645-6689,
www.nikonusa.com
PRICE: \$999.95

REQUIREMENTS: USB-equipped
Mac, software requires Mac OS 9.x
or later

GOOD NEWS: Beautiful, excellent exposures and accurate color. Good focusing ability. Compact with nice handling.
BAD NEWS: Slow write speeds. Grainy LCD monitor. Noise at higher ISOs.

MacAddict RATED
●●●●●
GREAT

NoteBook 1.2 and NoteTaker 1.8

SEPARATED-AT-BIRTH DIGITAL DIARIES

You use iPhoto and iTunes to organize your digital snapshots and songs. Wouldn't an iNotebook app be handy for keeping track of your thoughts and other digital-lifestyle debris? NoteBook and NoteTaker are two virtual journals that share a common heritage in an old NeXT app called NoteBook. Separated at birth, the two apps execute a similar notebook interface with varying degrees of svelteness and success.

Both NoteBook and NoteTaker initially present themselves as a spiral-bound notebook on the Mac desktop. Basic use is simple and intuitive—just start typing, and add as many entries as you wish to a page. The notebook metaphor continues with section tab dividers—you can add sections and new pages as needed, and the notebook document automatically updates its table of contents to match.

Both of these digital journals are voice aware, so in addition to typing you can talk to your Mac and record audio notes. You can also log URLs, PDFs, and QuickTime-compatible files via drag-and-drop methods, as well as pipe in digital photos direct from a camera, then put them all in context with typewritten notes. Now your brainstorm, blackmail photos, and secret plans for world domination remain consolidated, organized, and searchable.

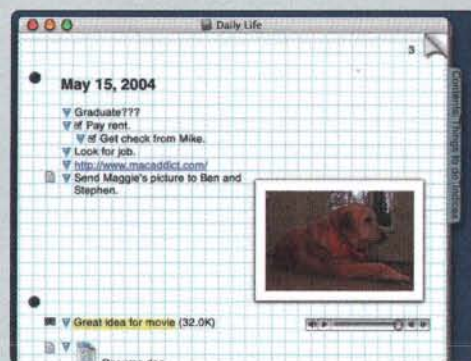
There's no end to the usefulness of this concept; both apps let you keep as many notebook documents

as you wish. Sure, you can take running notes with TextEdit, but the flexibility or organizing power of NoteBook and NoteTaker make them more appealing. For example, both programs let you choose whether to link to image and file documents on your hard drive or embed the files directly in the notebook document.

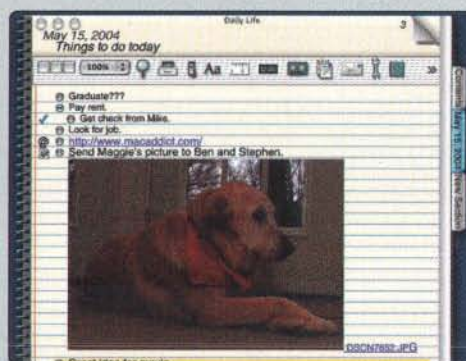
So which of these apps reigns? NoteTaker has more customization options, command sets, and tricks, though some of these are gratuitous.

user interface, and snappy performance provide a more Mac-like experience. NoteBook exports plain text, RTF, and XML formats, and its HTML export was flawless. The program continually updates its internal index, so it's always up to date when you need to find or browse your URLs, keywords, imported files, highlighted text, or other categories. NoteTaker, on the other hand, only indexes when you tell it to.

NoteBook has other endearing refinements too. For example, you



NoteBook 1.2 If you want a simple journal without toolbars, Web browsing, and slide shows, NoteBook is for you.



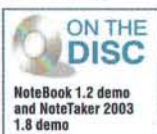
NoteTaker 1.8 We're content with just the section tabs, but if you want your journal weighed down with frills, try NoteTaker.

The toolbar and pull-down menus are crowded, but NoteTaker provides more export options, pumping out single pages or whole notebooks as PDFs, RTF files, plain text, XML or Word documents, or in NoteTaker's proprietary NTML format (NoteTaker Viewer is required to read NTML, but it's a free download from www.aquaminds.com/viewer.jsp). You can also use the Create Web Notebook feature to export HTML, but section-heading links to included pages didn't work in our simple test notebook.

NoteBook's clean appearance, simple

can rename new section tabs without returning to the table of contents, as NoteTaker demands you do. The keyboard left- and right-arrow keys flip pages in NoteBook but not in NoteTaker. NoteTaker has a 128-page PDF manual that's necessary reading, whereas NoteBook's HTML documentation is short and sweet.

If we wanted a complex notebook app, we'd wait and use the one that's coming in Microsoft Office 2004. Since we prefer elegant, capable simplicity, we're all over NoteBook.—Tom Lassiter



NOTEBOOK 1.2

COMPANY: Circus Ponies Software
CONTACT: 415-695-3100,
www.circusponies.com

PRICE: \$49.95, \$29.95 academic
REQUIREMENTS: G3, Mac OS 10.1 or later, 256MB RAM recommended

GOOD NEWS: Simple to set up and use. Automatic indexing on the fly.
BAD NEWS: Fewer organizational and custom-formatting options.



NOTETAKER 1.8

COMPANY: AquaMinds Software
CONTACT: www.aquaminds.com
PRICE: \$69.95, \$39.95 (academic)

REQUIREMENTS:
Mac OS 10.2.1 or later

GOOD NEWS: Offers more organizational and formatting options.
BAD NEWS: Complicated by superfluous features. No autoindexing.



pxl SmartScale 1.02

EXPENSIVE IMAGE-SCALING PLUG-IN

Size and quality is usually an either-or proposition when you're talking about enlarging digital images. Even Adobe Photoshop, king of photo-editing software, can only upscale an image so far before degradation sets in—the pxl SmartScale plug-in picks up where Photoshop's scaling leaves off.

Extensis's claims of 1600-percent enlargements with no quality loss might be technically accurate, but the practical quality of resizing at higher percentages depends on the original resolution of your image. Test images shot at 2,048 by 1,536 at 72 dpi scaled nicely up to 400 percent with no artifacts or color

shifts introduced. The same shot resized up to 1,200 percent didn't turn out as well, despite SmartScale's extensive controls over sharpness and edge detail. The 1,200-percent image had the most problems with skin textures, introducing artifacts around wrinkles and blemishes, and shifting color.

Lower resolution images shot at 640 by 480 at 72 dpi scaled less gracefully, introducing noticeable color errors in the 500-percent range. Despite the color errors introduced at larger percentages, SmartScale's resizing was higher quality across the board than Photoshop's built-in scaler, and correcting the color was much easier than trying to repair Photoshop's artifacts.


PHOTOGRAPHY BY RICK SANCHEZ

An image scaled by 300 percent in SmartScale (left) has sharper edges and less image degradation than one scaled by the same amount in Photoshop (right).

Of course the results vary depending on the original image, but all of our test shots scaled beautifully up to 300 percent, regardless of the original resolution. Seamless integration with Photoshop and an intuitive interface also make SmartScale a good—if pricey—addition to your software bag of tricks. —Rick Sanchez



COMPANY: Extensis
CONTACT: 800-796-9798 or
503-274-2020, www.extensis.com
PRICE: \$199.95

REQUIREMENTS: G3, Mac OS 9.2.2
or 10.2.5 or later, 128MB RAM, Adobe
Photoshop 6.0.1 or later or Elements 2.0,
QuickTime 5.0.2 or later

GOOD NEWS: Easy to use. Fast rendering.
Maintains edge detail. Quality printed images.
BAD NEWS: Color shifts on scales over 400
percent. Scaling quality is resolution-dependent.

MacAddict RATED
GREAT

Carrara 3D Basics

EFFECTIVE ENTRY-LEVEL 3D SOFTWARE

Learning most 3D applications is like studying medicine or preparing to swim the English Channel: The learning curve tends to be difficult, and there's very little in the way of immediate gratification. Not so with Carrara 3D Basics, which provides a gentle introduction to 3D, along with a few advanced features.

Like Eovia's higher-end 3D software, such as Carrara Studio 3 and Amapi Designer 7, Basics breaks the different scene-creation steps into virtual rooms that generally provide a sensible path to the third dimension. You start in the Model room, creating and modifying individual objects. You then refine your surfaces in the Texture room; build scenes out of objects in the Assemble room; map out scenes for an animation



Carrara's 3D Basics brings basic 3D to the masses.

in the Storyboard room; and finally, in the Render room, export 3D animation or stills in Carrara's CAR format, as well as in QuickTime, 3DS, or DXF formats.

3D Basics also supports formula functions, which let you manipulate

shapes, textures, lighting effects—pretty much anything in the app—via mathematical functions and equations. We wouldn't call formula functions intuitive, but 3D Basics makes math so darn cool-looking that you might be inspired to dig up a textbook.

Eovia provides 900 rudimentary 3D objects to get you started—nothing too slick, but they're handy for learning how to work with 3D objects or as starting points for your own 3D doodles. We never tire of applying metallic textures to objects such as banana bread, so we appreciate the sample objects.

At \$99, Carrara 3D Basics isn't going to break the bank, and it provides the closest thing possible to immediate gratification in a 3D program.

—Paul Yoon

COMPANY: Eovia
CONTACT: 858-457-5359,
www.eovia.com
PRICE: \$99

REQUIREMENTS: 266MHz G3,
Mac OS 10.1, 128MB of RAM

GOOD NEWS: Gentle learning curve. Inexpensive.
Great introduction to 3D.
BAD NEWS: No bound manual. No scalable vector
graphics (SVG) import.

MacAddict RATED
GREAT

Mercury Extreme G4/1.467-1.5GHz

POTENT PROCESSOR UPGRADE

A processor upgrade such as OWC's Mercury Extreme G4 can bring an aging Power Mac G4 up to a respectable 1.5GHz—but it can't help an old Mac's other hamstrings—for example, a slow hard drive and system bus, or low RAM.

Installation was simple, although we did have to visit OWC's Web site (<http://eshop.macsales.com/Tech>) to find the correct jumper settings for 1.5GHz—the manual included settings only for speeds up to 1.4 to 1.467GHz.

The Extreme's power boost was most apparent in processor-intensive tasks such as QuickTime compression and multitracked GarageBand software instruments. Running on the Extreme, QuickTime encoded a DV file into MPEG-4



This can help you put off replacing your old Mac.

2.5 times faster, and we loaded up a GarageBand session with 12 effect-laden tracks before the Mac choked—at 400MHz, we got only three tracks.

Photoshop junkies, however, would

do better spending their money on RAM. Our Action test (for details, see "Upgrade Your Mac," Feb/04, p21) took 14:40 on the 400MHz G4 with 128MB RAM; The Mercury Extreme cut the time to 11:06. Adding two 512MB DIMMS (\$135.99 each, www.macsales.com) cut that time down to 5 minutes on the 400MHz G4. Adding the Extreme G4 and 1GB of RAM gave us a time of 3:02 on the Photoshop tests but didn't surpass QuickTime or GarageBand performance on the Extreme G4 with 128MB of RAM.

Overall, the Mercury Extreme G4 is easy to install and dramatically speeds up CPU-dependent operations. It's a great choice if your old Mac is choking on GarageBand.—*Niko Coucouvanis*



COMPANY: Other World Computing

CONTACT: 800-275-4576,

www.macsales.com

PRICE: \$529.99

REQUIREMENTS: Any AGP-equipped Power Mac G4 (Sawtooth or later), Mac OS 9.2.1 or later

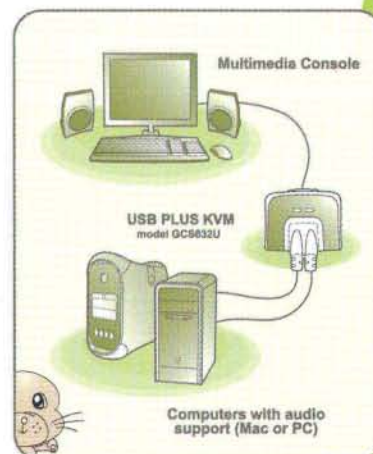
GOOD NEWS: Fast. Easy to install. Plug-and-play operation. Big boost for older G4s.

BAD NEWS: Only speeds up processor-dependent tasks. Not as exciting as getting a new Mac.



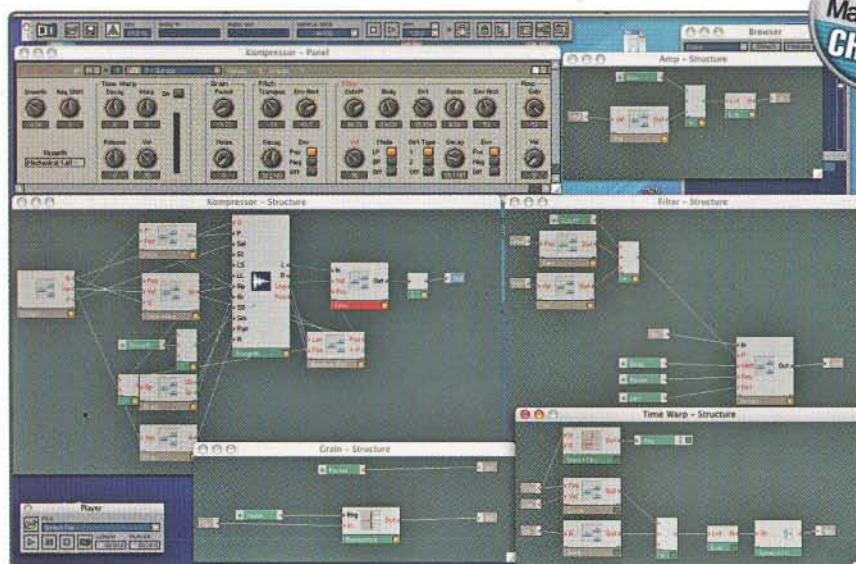
It's the perfect marriage of Mac and PC. IOGEAR's MiniView™ Micro USB PLUS KVM Switch joins these two platforms together in a state of uninterrupted bliss, enabling you to access your systems - including audio - from a single monitor, keyboard and mouse. For better or for much better, IOGEAR's MiniView™ Micro USB PLUS KVM saves desktop space while empowering you to easily switch between your computers with simple keystrokes.

Contact IOGEAR today for more info on this honorable institution.



IOGEAR

<http://mac.iogear.com>
IOGEAR Inc. 23 Hubble Irvine, CA 92618
P: 949.453.8782 ext. 2003



A typical Reaktor session includes an audio compressor and its associated structures.

You can reconnect virtual wires and hear the results as you tweak.

Reaktor 4

SUPERSONIC AUDIO SYNTHESIZER

An advanced audio construction kit, Reaktor is in the same league as Cycling 74's Max/MSP, but with little overlap in functionality. While Max/MSP is primarily—though not exclusively—designed to control external hardware devices and video effects, Reaktor is all about making your Mac into the world's most awesome sonic sandbox.

The Reaktor environment is a mad scientist's laboratory of audio building blocks, strung together in a maze of virtual wires and connectors. The core Reaktor document is the Ensemble, in which you set up the overall routing of Instruments. These Instruments are made up of combinations of modules (filters, oscillators, samplers, and all sorts of audio modifiers), macros (configured groups of modules), and fully realized Instruments embedded as subroutines. If all this sounds a little daunting, well, it is—but the trick to wrapping your brain around this monster is to study any of the many included tutorial files or library instruments.



Registered users get access to over 1,500 additional Ensemble files on

the Native Instruments Web site. It's fairly straightforward to take an existing drum machine, for example, and apply virtual circuit-bending to warp it into a nightmarish industrial beatbox.

The entire design process is interactive—you can pipe in live audio as you create a space echo from the 9th



SteamPipe is a showstopper that whips up eerily realistic guitars, wind instruments, and other modeled delights.

dimension, and you can hear the results of what you're editing as you drag connections between modules.

Once you've designed your dream Ensemble, you can play it from within Reaktor or deploy it as one of a number of plug-in types (VST 2.0, RTAS, or Audio Units). You can run multiple copies of a

plug-in concurrently, processor power permitting—some of the more complex synths and delays took up to 50 percent of our 1GHz G4's juice at any given time.

Reaktor's repertoire is broad enough for just about any kind of musical work. The SteamPipe synth is a wondrous thing, based on modeling the physics of the vibrations of plucked strings, blowing air, and a host of tunable and programmable "pipes." If you've ever seen the Blue Man Group and their PVC instruments, you've got an idea of the sounds the SteamPipe can produce—it can also create the finest cello synth we've ever heard. Vierring is a wild rhythm maker, with extensive filtering and special effects. Vierring is perfect for dance-music production, as is the WaveWeaver, which mangles sampled audio files into looped burlblings of the highest "wow" factor.

If echoes and reverbs are your bag, toss your Roland Space Echo and hug Reaktor's Space Master, a stunning update to the venerable effect, including stereo, quadraphonic, and 5.1 surround models. Fusion Reflections provides silky chorus, detuning, and modulated delays, turning simple instrumental or vocal passages into clouds of aural bliss. Banaan Electric is a full-blown amp simulator and stomp-box chain for guitar players, and includes phasers, flangers, chorus, overdrive, dual delay lines, and reverb. And then there's the stuff for advanced live performance and sample mangling, such as the uniquely useful Scenario for real-time processing of sampled loops with auto tempo synchronization, time-stretching, synchronized delays, and a whole lot more.

While Reaktor 4 is not meant to be your only synthesizer or effects tool, you could easily make do with this on a desert island and never, ever get bored.—David Biedny



COMPANY: Native Instruments
CONTACT: 866-556-6487,
www.native-instruments.com
PRICE: \$559

REQUIREMENTS: G4, Mac OS 9.1
or 10.2 or later

GOOD NEWS: Extensive selection of audio building blocks. Excellent collection of premade instruments and effects. Real-time feedback for all editing operations.
BAD NEWS: Difficult learning curve. Processor-hungry.

MacAddict RATED
★★★★★
GREAT

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CHANGED THE WORLD,
NO ONE FOUGHT ALONE.



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Learn to Play Keyboard Bundle

HO-HUM MIDI KEYBOARD AND INSTRUCTIONAL CD

There are certain skills—such as languages, cooking, and winning friends and influencing people—that instructional CD-ROMs promise to teach you but usually don't. Is eMedia's Learn to Play Keyboard Bundle one of these over-hyped educational titles, or is it a legitimate piano teacher in a box? The answer is that it's a little bit of both.

eMedia's Piano Method 1 CD contains a set of 316 lessons grouped into 11 music skill and theory categories, including Legato and Staccato, Triads and Chords, and Extending Hand Position. The interface is rudimentary

metronome for keeping time, Recorder mode for recording and playing back your lessons, Automating Page Turning mode for uninterrupted play, and fingering hints. You can also play songs with pre-recorded accompaniments.

The most useful tool is Automatic Feedback. When enabled, it analyzes your playing of a song, processes your performance for a few seconds, and then labels the notes you misplayed or notes you played at the wrong tempo. Automatic Feedback is a ruthless taskmaster. When we played a passable performance of La Bamba, Automatic



eMedia's instructional CD plus MIDI keyboard is a great idea, executed dully.

but the instruction is clear. Interspersed throughout screens of theory are classic exercises that remind of us grade-school piano class, as well as songs ranging from folk to ragtime to light rock.

You play these songs on a bundled 49-key MIDI keyboard custom built for eMedia. The keyboard plugs into your Mac's USB port through the aid of a supplied M-Audio USB-to-MIDI adapter. If you're running Panther, go to M-Audio's site and download the latest drivers. Like eMedia's other CD-ROM tutorials, Piano Method 1 comes with a number of helpful instructional tools: a

Feedback gave us a 70 percent grade due to our sloppy rhythm.

If you've never played an instrument and are completely new to reading music, no CD-ROM is going to substitute for a teacher. If you're looking to brush up on childhood piano skills, you may enjoy the refresher course but will probably finish the tutorial within a few months. If you're a student in a dorm room, the compact size of this set-up is a great substitute for a campus practice room—but then, no 20-somethings we know are psyched about learning how to play Billy Joel's *Piano Man*.

—Narasu Rebbapragada

COMPANY: eMedia

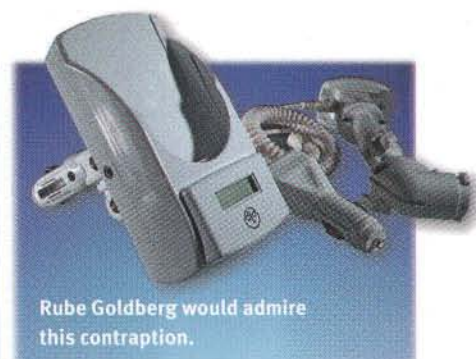
CONTACT: 206-329-5657, www.emediamusic.com

PRICE: \$199.95

REQUIREMENTS: USB-equipped PowerPC Mac, System 7.5 or Mac OS 10.2 or later, 32MB RAM

GOOD NEWS: Good, clear keyboard-and-music instruction.
BAD NEWS: Dated music and interface.

MacAddict RATED
○○○○○
SO-SO



Rube Goldberg would admire this contraption.

TransPod FM

WACKY IPOD AUTO KIT

S naking out of your car's cigarette-lighter power socket, DLO's extravagantly named TransPod FM All-In-One Car Solution for iPod combines the best iPod-to-FM-radio transmitter we've heard with an adjustable mounting arm and a charger for the iPod's battery—enough multifunctionality to justify the contraption's ungainly appearance. And there's a bonus: In case the arm doesn't work in your car, the TransPod also includes a dash-mount kit with a shorter arm, plus a power adapter. Either way, the included arm extension provides an adjustable elbow joint to help you position the iPod precisely.

Using the TransPod is simple. Just slide in a dockable iPod, tune the car radio to any unused frequency, and tune the TransPod to the same frequency. The TransPod's tuner is easier to use than those of other transmitters, which either limit you to four frequencies or make you select radio-frequency files on the iPod to make the FM connection.

The TransPod uses the line-level audio signal from the iPod's dock connector, which is stronger than the signal other transmitters pull from the iPod's headphone jack. Its stronger signal and full-dial frequency support—and the fact that it provides a convenient place to park the iPod—redeem the TransPod's kludgy look and make it eminently usable.—Niko Coucouvanis

COMPANY: Notalog

PRICE: \$99.99

CONTACT:

REQUIREMENTS:

919-382-3227,
www.everythingipod.com

iPod with dock connector

GOOD NEWS: Superior FM transmission.

BAD NEWS: Eccentric construction. Doesn't fit some sockets.

MacAddict RATED
○○○○○
GREAT

You Synchronize 2.01

SMART FILE-SYNCING UTILITY

If you need to keep the same set of the most up-to-date versions of files on multiple Macs—say, on your PowerBook and your desktop Mac, then you're a prime candidate for You Synchronize, a handy utility that makes file synchronization easy, if not always speedy.

Using a drag-and-drop interface, you choose two folders (likely one each on two networked Macs) to synchronize, click the Synchronize button, watch You Synchronize figure out which files have changed or are entirely new in either folder, then automatically copy those changes to the other folder. We tried sandbagging the process by messing with the files: renaming or deleting

some, moving others to new folders within the designated sync folders, and making frequent edits to a Word document. You Synchronize didn't miss a beat. Plus, we could schedule automatic syncs, cutting our manual labor to zero—always a good thing.

The bad news: You Synchronize takes a fair amount of time when syncing lots of files. For instance, when we synced our iTunes music collection between two Macs, the app needed about 15 minutes to scan 350 tracks on one Mac and 450 tracks on the other—all before starting to copy any files. And after we added another two songs to one of the Macs,

resyncing took another 15 minutes of analysis. On the upside, you can drastically cut down that time by using a less-accurate method of analysis, such as syncing merely by modification date—which, depending on the content of your files, can still be plenty accurate.

We don't mind waiting for hassle-free, accurate syncs, and in that respect, You Synchronize did the job.—*Helmut Kobler*



Just tell You Synchronize what to sync and how thoroughly to sync it, and the rest is automatic.



COMPANY: You Software
CONTACT: 503-973-6060, www.yousoftware.com
PRICE: \$49.95 (\$29 to upgrade from ExecutiveSync)

REQUIREMENTS: Mac OS 10.2.6 or later

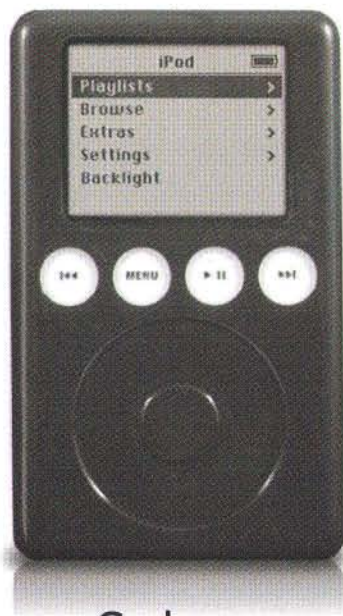
GOOD NEWS: Supereasy setup. Automated scheduling and detailed sync logs.

BAD NEWS: High-accuracy checksum syncs take a long time. Can't currently sync iDisk contents.

MacAddict RATED

GREAT

From Carbon to Candy we have your color.



Carbon

Choose from 20 custom painted iPods

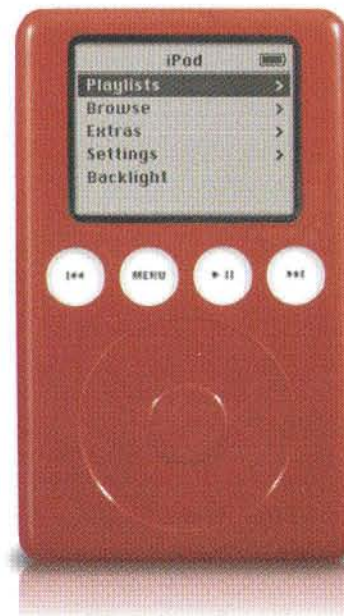
High gloss finish to help protect the screen

Buy new or get your used one colored

Color matched dock and earphones



COLORWARE



Candy Apple

www.colorwarepc.com
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HomePod

CHEAP-LOOKING WIRELESS MUSIC STREAMER

We love the idea of streaming our iTunes library to our home stereo—but the reality of Macsense's HomePod is quirky performance and Fisher-Price looks.

By tapping into your network (Ethernet or wireless 802.11b or 802.11g) and attaching a set of speakers to the HomePod, you can listen to your iTunes playlists on something other than your Mac. Setup is simple—just install the HomePod Audio Server software on your Mac, identify your iTunes Library, and click Start. Then turn on the HomePod.

Once the HomePod detects the server software, you can use the on-device controls or the included remote control to scroll through your iTunes Playlists.

You can also browse by albums, artists, and genre. A 2.5-inch backlit LCD displays your menus and songs in giant, 1970s-pocket-calculator-style text. The HomePod also includes an FM radio, as well as built-in speakers that sound absolutely terrible. Luckily it also has a stereo headphone jack, stereo RCA audio jacks, and coaxial and optical digital-out ports for plugging in real speakers.

The HomePod has a few eccentricities. First, you need to start up the server software manually every time you boot your Mac. Also, while it plays MP3 files, it currently won't play AAC or WMA audio files—although Macsense is working on supporting these formats via a firmware



We hate harping on looks, but come on...

update. And, of course, the device doesn't play Apple iTunes Music Store tunes due to rights issues. (Thanks, Apple!)

At the end of the day, the HomePod works if you're willing to live with some quirks—and a big white device that looks like a child's toy.—Cathy Lu



COMPANY: Macsense
CONTACT: 650-552-9110,
www.macsense.com
PRICE: \$249.95

REQUIREMENTS: G3 or faster, Mac OS 9 and/or X or later, wireless or wired network

GOOD NEWS: FM tuner built-in. Setup is a cinch.
BAD NEWS: Pricey, but looks cheap. Requires you to relaunch the Audio Server software every time you boot up.

MacAddict RATED
●●●●●
SOLID

AutoScrubber

NO-NONSENSE SECURITY UTILITY

If you floss four times a day and habitually use Mac OS X's Secure Empty Trash feature to delete your documents beyond any hope of recovery, you're part of AutoScrubber's target audience. This pricey utility goes the extra mile—it securely deletes all of your trashed files so that there's no way to recover them. But wait, there's more: AutoScrubber also monitors and destroys temporary files that apps create when autosaving or printing documents.

We feel safe enough having our Macs protected by passwords, firewalls, and savage attack kittens—whether that makes us

careless or realistic is a judgment call. If nefarious types have unfettered access to your Mac and you're the paranoid type, AutoScrubber is for you.—Niko Coucouvanis



Welcome relief for the paranoid.

COMPANY: Jiiva
CONTACT: 503-520-9500,
www.jiiva.com
PRICE: \$59.99
REQUIREMENTS: Mac OS 10.2 or later



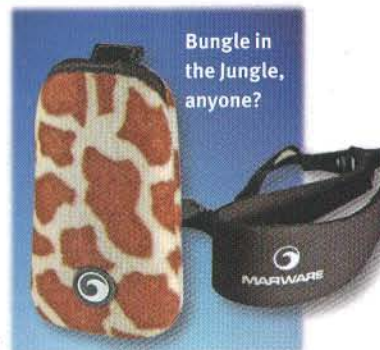
GOOD NEWS: Works as advertised. Easy to use.
BAD NEWS: We're not that paranoid. Expensive one-trick pony.

MacAddict RATED
●●●●●
SOLID

Mini SportSuit Safari

CUTE IPOD MINI CASE

Providing more surface protection than impact resistance, Marware's SportSuit Safari is a cute but somewhat impractical case for the iPod mini. Made of neoprene-lined faux fur (choices include leopard and zebra patterns, as well as solid colors), the suit's only opening is at the top, where a Velcro tab keeps the mini snug while providing access to the Hold switch and headphone jack. A belt loop on the back and a detachable lanyard make the SportSuit wearable, and while we expect the novelty will wear off, we know several cell-phone owners eager to take one as a hand-me-down. The SportSuit Safari is simple and fun—much like the iPod mini it holds.—Niko Coucouvanis



Bungle in the Jungle, anyone?

COMPANY: Marware
CONTACT: 954-927-6031, www.marware.com
PRICE: \$19.95

REQUIREMENTS: iPod mini, cellphone, marbles, whatever

GOOD NEWS: Fun design. Groovy animal prints.
BAD NEWS: No control-wheel or FireWire port access.

MacAddict RATED
●●●●●
SOLID



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the HotList

THE BEST OF THE BEST FROM RECENT REVIEWS

SHOPPING?
HERE'S WHAT WE
RECOMMEND

NEW THIS MONTH



Ableton Live 3.0.2

Digital-audio guru Kent Carmical says, "You owe it to yourself to try Live 3."



Apple Final Cut Express 2.0.2

MacAddict Contributing Editor and video pro Helmut Kobler calls Express "the best value in video editors."



Apple iPod mini

The iPod mini, in the words of MacAddict Executive Editor Cathy Lu, is "a must-have gadget."

WiebeTech MicroGB800

According to MacAddict Reviews Editor Niko Coucouvanis, this pocket drive "impressed us in every way."

SOFTWARE

AUDIO

Ableton Live 3.0.2	\$399.00	May/04, p58	New effects, clip-level automation—in a real-time sequencer.
IK Multimedia AmpliTube Live	\$129.00	Nov/03, p46	Don't think software can replace monster guitar amps? It can.
Native Instruments Absynth 2	\$299.00	Apr/04, p42	This software synth can create audio magic like no other.
Propellerhead Software Reason 2.5	\$449.00	Sep/03, p55	It's earned its rep as the top software sound studio.

GAMES

Freeverse Software ToySight	\$34.95	Apr/04, p50	Use your Webcam to play this game—it's as cool as it sounds.
MacSoft Halo: Combat Evolved	\$49.99	Mar/04, p38	It's as awesome as your Xbox buddies said it was.
MacSoft Neverwinter Nights	\$49.99	Jan/04, p54	Faunt your Dungeons & Dragons skills in the best RPG ever.
MacSoft Unreal Tournament 2003	\$49.99	Oct/03, p44	Blood and gore. Violence. More blood and gore. More violence.

GRAPHICS & LAYOUT

Adobe Acrobat Professional 6	\$449.00	Nov/03, p50	If you're in pro publishing, this is one must-have app.
Adobe InDesign CS	\$699.00	Feb/04, p46	More features and easier navigation make layout a snap.
Adobe Photoshop CS	\$649.00	Feb/04, p44	Just when you thought Photoshop couldn't get better, it did.
Adobe Photoshop Elements 2	\$99.00	Dec/02, p40	This app has most of Photoshop's power for \$550 less.
Macromedia Dreamweaver MX 2004	\$399.00	Jan/04, p48	Our favorite Web-design tool adds improved CSS support.
Macromedia Flash MX 2004 Professional	\$699.00	Jan/04, p48	Don't know how to write code? Flash MX will do it for you.
Macromedia FreeHand MX	\$399.00	Jun/03, p49	In the race with Adobe Illustrator, FreeHand pulls ahead.

PRODUCTIVITY & UTILITIES

Bare Bones Software BBEdit 7.0.1	\$179.00	Mar/03, p52	By far the most powerful text editor money can buy.
Microsoft Office v. X	\$399.00	Feb/02, p42	The 800-pound gorilla of productivity applications.
You Software You Control	\$49.95	Apr/04, p45	This menu utility increases your control over your Mac.

VIDEO AND ANIMATION

Adobe After Effects 6.0	\$649.00	Dec/03, p49	This motion-graphics stud improves its 3D powers.
Apple DVD Studio Pro 2	\$499.00	Dec/03, p58	Apple's essential DVD-burning app is still the one to beat.
Apple Final Cut Express 2.0.2	\$299.00	May/04, p48	Unless you need to go Pro, Express will save you \$700.
Apple Final Cut Pro 4	\$999.00	Sep/03, p44	This kick-ass video editor now includes four new apps.

HARDWARE

ACCESSORIES

Kensington Expert Mouse	\$127.95	Oct/03, p60	Optical trackball plus scroll wheel equals killer controller.
Microsoft Wireless IntelliMouse Explorer	\$64.95	Jan/04, p57	Our favorite mouse adds horizontal scrolling.

AUDIO & VIDEO

ADS Technologies Pyro DV Drive	\$650.00	Jan/04, p55	Record DV video directly to this mobile encoder and drive.
Apple 20GB iPod	\$399.00	Jul/03, p44	The world's greatest MP3 player gets smaller and cooler.
Apple iPod mini	\$249.00	May/04, p45	If size and style are important to you, pick up this MP3 player.
M-Audio Ozone	\$399.95	Feb/03, p59	Need a portable audio-and-MIDI controller? Look no further.

DIGITAL CAMERAS

Canon EOS Digital Rebel	\$999.00	Mar/04, p48	Finally, an affordable pro-quality digital SLR camera.
Nikon Coolpix 5400	\$699.95	Dec/03, p22	This prosumer camera handles well and shoots even better.
Olympus C-4000 Zoom	\$449.00	Jan/03, p52	Great image quality, 4 megapixels, and versatile controls.
Olympus D-560 Zoom	\$229.00	Dec/03, p22	This affordable point-and-shoot cam provides great images.

DISPLAYS

Apple Cinema HD Display	\$1,999.00	Aug/02, p40	This 23-inch, 1,920-by-1,200-pixel beauty inspires lust.
Formac gallery 2010 Platinum	\$1,199.00	Jan/03, p47	Bright, fast, huge—and it costs only \$0.0006 per pixel.

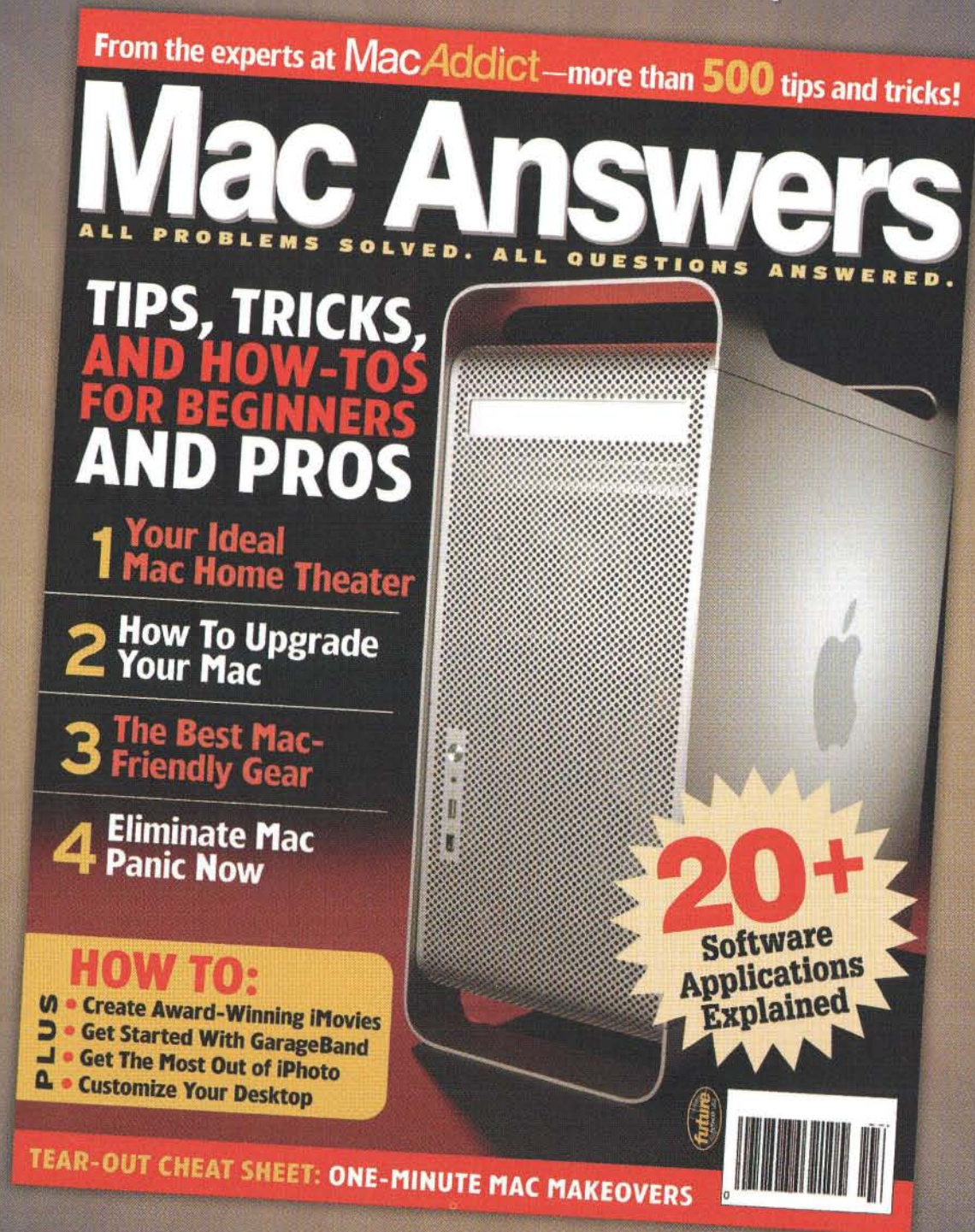
PRINTERS

Brother HL-1870N	\$699.99	Aug/02, p45	Need a sturdy laser printer? This one's a workhorse.
Epson Stylus Photo 2200	\$699.00	Oct/02, p42	The most stunning photo printer we've ever tested.
HP Laserjet 1012	\$199.99	Mar/04, p51	Can a pint-size, sub-\$200 laser printer be this good? Yep.

STORAGE

LaCie d2 200GB FireWire 800	\$259.00	Jun/03, p47	FireWire 800 speed meets solid-as-a-rock construction.
OWC Mercury Elite Pro	\$259.99	Jul/03, p53	This 180GB FireWire 800 drive outpaces the competition.
WiebeTech Fire800	\$549.95	Dec/03, p53	Hefty 300GB capacity combines with speedy performance.
WiebeTech MicroGB800	\$429.95	May/04, p61	At 7,200 rpm, this 60GB beauty is one snappy portable drive.

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MacAddict Newsstand Special Issue



On Sale July 27, 2004

www.macaddict.com

ask us

G3 FILE BACKUP

How can I backup the files on my old Power Mac G3 tower using my new iBook's CD burner?

First, connect the Ethernet ports on each machine with a standard Ethernet cable. (To perform this same operation on some Macs, you need an Ethernet crossover cable—check out Apple Support document 42717 (<http://docs.info.apple.com/article.html?artnum=42717>) to find out what type of cable your Mac requires. After connecting your Macs, set up File Sharing on both machines. Copy data over this network from your G3 to your iBook, where you can now burn a CD. Check Apple's support articles 106461 (<http://docs.info.apple.com/article.html?artnum=106461>) for setting up File Sharing in Mac OS X and article 106657 (<http://docs.info.apple.com/article.html?artnum=106657>) for setting up File Sharing in Mac OS 9.

LOST KEYCHAIN

I've forgotten my Keychain password.

What can I do?

Unfortunately, you have to delete your

entire Keychain with all your passwords, then reassign new ones. To do so, either delete your keychain file in *user name* > Library > Keychains, or launch the Keychain Access utility (Applications > Utilities), and choose File > Delete Keychain *user name*. Then restart your Mac, which creates a new Keychain to which you can then reassign passwords in Keychain Access.



Maintain your Keychains using the Keychain Access utility.

CONNECTING APPLE PRO SPEAKERS

Can I use Apple Pro Speakers with my new Power Mac G5?

Unlike iMacs and some Power Mac G4s, Power Mac G5s do not have a custom Apple Pro Speaker jack. You can, however, connect Pro Speakers to your G5 using Griffin Technology's iFire (\$39.99, www.griffintechnology.com). This adapter sits between your Pro Speakers and your G5's standard 1/8-inch minijack and FireWire port.

FIND FREE FONTS

Where can I find free versions of famous fonts?

Head over to Famous Fonts (www.smackbomb.com/famousfonts) for free downloadable versions of fonts used in

advertisements, TV shows, and other media. The fonts are all in the Windows TrueType format, which works fine in Mac OS X. If you want to use these fonts in Mac OS 9, however, you need to convert them for use on the Mac using Signature Factory's TTConverter (\$10, www.signaturefactory.com/TTConverter.htm).

GUITARS AND GARAGEBAND

What do I need to hook up my guitar to a Mac running GarageBand?

If your Mac has a 1/8-inch Audio-In port, all you need is a 1/4-inch-to-1/8-inch adapter such as Monster's iStudioLink (\$19.95, www.monstercable.com) to physically connect your guitar. If you must rely on USB, check out M-Audio's MobilePre USB Audio Interface (see below; \$179.95, www.m-audio.com), which has multiple inputs and outputs, and is recommended on Apple's Web site. A cheaper alternative is Griffin's iMic (\$39.99, www.griffintechnology.com).



Use a USB interface like M-Audio's MobilePre to connect a guitar to a Mac that doesn't have a built-in Audio-In port.

GIBBERISH-FREE TEXT DOCUMENTS

When I open some email attachments, all I see is gibberish. Why?

This can happen when the sender attaches a file without its three-letter suffix. For example, if a JPEG image

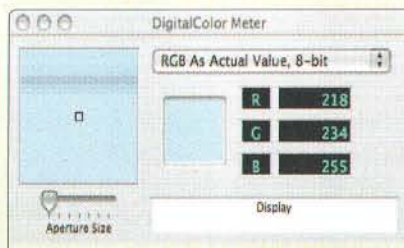
quick answers

FIND THAT COLOR

How can I find the exact color of my Mac's desktop pattern?

Launch the DigitalColor Meter (Applications > Utilities), hover your cursor over the color you want to

identify, and watch the RGB values appear in the DigitalColor Meter window.



The DigitalColor Meter reveals the RGB mix of any color on your Mac.

DVD REGION CODES

Can I use Apple's iDVD to create a DVD specifically for playing in Region 3 (parts of Asia)?

No, you need to use Apple's DVD Studio Pro (\$499, www.apple.com).

TIFF SCREENSHOTS

How can I take Mac OS X screenshots in TIFF format?

Use Apple's Grab utility (Applications > Utilities) instead of the built-in Command-Shift-3 shortcut, which only takes PDF screenshots.

comes to you without the .jpg extension, your Mac may not know what to do with it. To fix this problem, try adding the extension yourself (provided you know the file type). Your Mac will turn the file's generic icon to the appropriate icon for its file type and then find the right app to open the file.

iPHOTO SHARING

Why can't I get two networked Macs, each running iPhoto 4, to see each other's shared photos?

Try this trick: Temporarily move your iPhoto Library folder from your *user name* > Pictures folder to the desktop and then launch iPhoto. iPhoto will ask you to either create a new Library or find the old Library. Without clicking anything in iPhoto, return your iPhoto Library to the Pictures folder from the desktop. Go back to iPhoto and choose to locate your iPhoto Library, navigating to the Pictures folder to select your original Library. Photo sharing should now work correctly.

CHOOSING PROTOCOL HELPERS

How can I assign a different helper application to access FTP or telnet Internet sites in Mac OS X?

Use More Internet (free, www.monkeyfood.com/software/moreInternet) to assign applications as helpers for different Internet protocols. This invaluable system preference lets you specify which program will handle different URL and file types. For example,



using More Internet, you can set your Mac to launch Stairway Software's Interarchy

UNIX UNIVERSITY

TOP OFF YOUR MAC

What is the top command?

The Unix command top shows an active, changing list of all the processes running on your computer. To access

PID	COMMAND	NCPU	TIME	#TH	#PRTS	#REGS	PPR
623	screenapt	0.0%	0:00.06	1	27	34	42
613	BBEdit Lit	0.0%	0:06.21	2	66	238	3.8
689	top	16.5%	0:53.45	1	18	26	44
591	tcsh	0.0%	0:00.09	1	13	28	34
598	login	0.0%	0:00.04	1	13	37	13
577	Terminal	0.7%	0:02.17	5	90	249	1.7
558	QuarkXPress	2.3%	1:05.51	3	80	680	26
362	Adobe Phot	0.7%	2:36.08	4	120	1719	24
378	Image Capt	0.0%	0:01.12	2	67	171	73
377	Safari	0.0%	7:17.05	8	136	578	32

this information, launch the Terminal (Applications > Utilities), type **top** at the command line, and press Return. The resulting data shows tons of info, such as every application that's running and how much RAM and processing power it's using. This can be a useful tool for troubleshooting.

The top command reveals here that QuarkXpress is using 2.3 percent of the CPU.

file-transfer software (\$39, www.interarchy.com) when you click an FTP-server link in an email.



Use More Internet to assign helper applications for different Internet protocols.

DVD DUPLICATE

What's the easiest way to duplicate a DVD created in iDVD?

Create a disk image of the DVD as you would if you were copying a CD. In Mac OS 10.3, insert your DVD and then launch Disk Utility (Applications > Utilities).

Highlight the name of your DVD in the Disk Utility window and then click the New Image button in the title bar. Save your image to any location to get an exact copy of your DVD. To burn another copy of the DVD, drag the finished .dmg file into the Disk Utility window, highlight it, and click the Burn button in the title bar. (Note: This process won't work with copy-protected commercial DVDs.)

MAKE SAFARI FULL SCREEN

What's a foolproof way to put Safari in full-screen mode?

First, type the following JavaScript into the Safari Address Bar, with no spaces: `javascript:self.moveTo(0,0);self.resizeTo(screen.availWidth,screen.availHeight);`

Press Return, and your browser should expand to full screen. Next, drag the blue globe icon in the Address Bar to the Bookmarks Bar below it. Rename the bookmark Full Screen in the dialog that appears, and click OK. The next time you want to expand the Safari window to full screen, just click the Full Screen bookmark. To get back to a smaller window, click the green widget in the window's title bar.



Seven years of handling tech support for Apple, Power Computing, and a Texas school district have given Buz Zoller Mac superpowers.

OS X COMPATIBLE PRINTERS

How can I tell if my printer is compatible with Mac OS X?

Check the printer manufacturer's Web site or Apple's compatibility list at www.apple.com/macosex/upgrade/printers.html.

CLOSE ALL WINDOWS

How can I simultaneously close all open windows in a given application?

Click Command-Option-W to close all open windows. This works with many apps, but not all.

SET DEFAULT EMAIL APP

In Mac OS 10.3, where do I set up my default email program?

Go to your email client's preferences. In Apple Mail, choose Preferences from the Mail menu, click the General button, and select an app from the Default Email reader menu.



Set up your default email program in preferences.

Submit technical questions or helpful tips directly via email (askus@macaddict.com) or c/o MacAddict, 150 North Hill Dr., Brisbane, CA 94005.

Build Your Own Supercomputer Cluster

EASY

by Niko Coucouvanis

WHAT YOU NEED

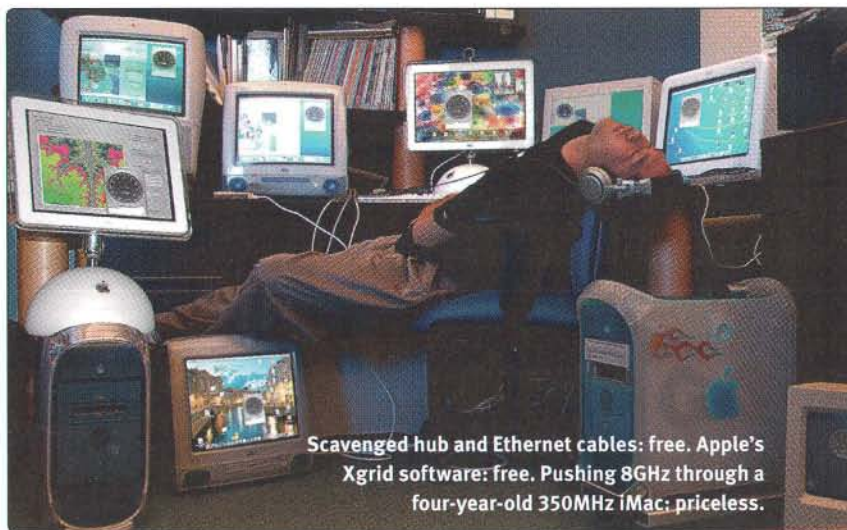
Xgrid 1.0 Technology Preview
(free, www.apple.com/acg/xgrid)

Two or more Macs running
Mac OS 10.2.8 or later

Ethernet hub and cabling (if your
Macs aren't networked together)

Steve Jobs's old *G4 equals supercomputer* rap still sounds good on paper. And the G5 was briefly (and dubiously) heralded as the *world's fastest personal computer*. But after learning of Virginia Tech's startling 1,100-strong G5 supercomputer project, all the cool kids these days are building their own supercomputer clusters—bunches of G4s, G5s, and even G3s networked together—to do major crunching on a common task.

If you're jonesing for the juice of a supercomputer cluster (if only to say you have one) but are logistically limited to a home or school lab full of iMacs and whatnot, we have good news for you.



Scavenged hub and Ethernet cables: free. Apple's Xgrid software: free. Pushing 8GHz through a four-year-old 350MHz iMac: priceless.

It's called Xgrid. With this free software (available from Apple), you can set up your own cluster and turn a motley crew of Macs into a number-crunching supercomputing team. Even if you don't aspire to be a rocket scientist, you can get more power out of your cluster than any of your single Macs could ever provide. Here's how.

PHOTOGRAPH BY KRIS FONG

1 Get the Goods

If you haven't already, download the Xgrid 1.0 Technology Preview from Apple's Advanced Computing Group Xgrid Web site (www.apple.com/acg/xgrid). Then install the software on every Mac that you want to assimilate into the cluster. The software installs two applications—Xgrid and Xgrid BLAST (basic local alignment search tool, for crunching DNA and protein sequences should you so desire). Xgrid also installs a new preference in Mac OS X's System Preferences, which you can fiddle with later when you configure each Mac as either an agent or a controller (see "The Supercomputing Team," facing page). After installing, restart each Mac.

Apple Xgrid

Apple Releases Xgrid 1.0 Technology Preview (Press Release)
Read the Press Release Apple announced on January 6, 2004.

[Xgrid 1.0 Technology Preview \(download\)](#)

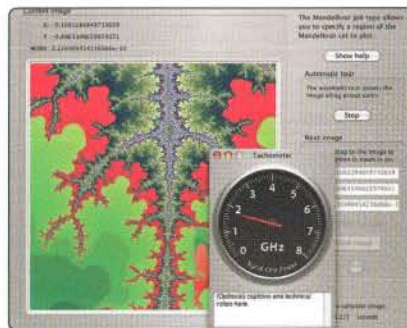
Apple's Advanced Computing Group, using open standards such as Resource Management Protocol (RMP), is creating a distributed super-computer. [Jan 6 2004]

Before you hook-up your machines, download Xgrid from Apple's site and install it on all your Macs.

2 Take a Dry Run

For a little instant gratification—and to see how Xgrid works—test the current number-crunching power of any of your Macs' by firing up Mandelbrot, a complex mathematical calculating program. Even if you're not a total math geek, the artsy fractal patterns the program generates should provide some entertainment. Choose any of your Macs, go into the Applications folder, and double-click the Xgrid icon to launch the app. In the resulting dialog, click Start Local Service to open the New Job window. Select Mandelbrot from the Job Type list

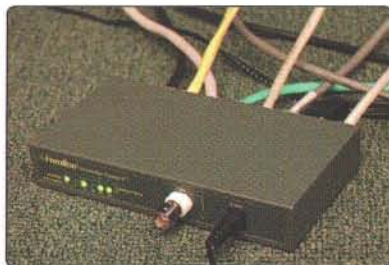
and click OK to let the calculations begin. Check out the Tachometer window to see how your Mac's CPU load is faring. When you're ready to move on, close the Mandelbrot window.



Who knew math could look so...interesting?

3 Network the Cluster

Time to build the tag team. If your Macs are already networked together, skip to step 4. If not, string together a little no-frills network. You need a 10/100Base-T Ethernet hub with enough ports to accommodate all your Macs and one cat-5 Ethernet patch cable for each Mac. In a pinch, you can use any generic hub you find at the corner peecce shop for about \$10. If you need more ports to connect your cluster, connect

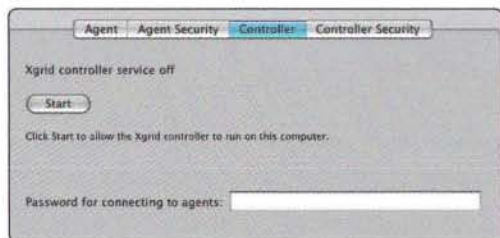


We just plugged our Macs into a hub, and presto—instant network. Thanks, Rendezvous!

another hub (or two) by hitching one hub's Uplink port to another hub. Then connect each Mac to any hub port to network them. Apple's Rendezvous automatically handles the rest of the network settings—no router, NAT, DHCP, or other network voodoo required.

5 Configure the Controller

Xgrid needs only two machines to qualify a cluster—one agent/controller and one other agent. You already set up your Macs as agents, so now set up the controller. Choose any of your Macs, open System Preferences, and click Xgrid to open its preferences. Click the Controller tab to display its settings. Leave the password field blank if you want—we're all friends here—unless you absolutely want to type in a password each time you connect to other agents. Then click Start to complete its assignment.



To turn a Mac into a controller, just click Start. This ain't rocket science—it's supercomputing!

The Supercomputing Team

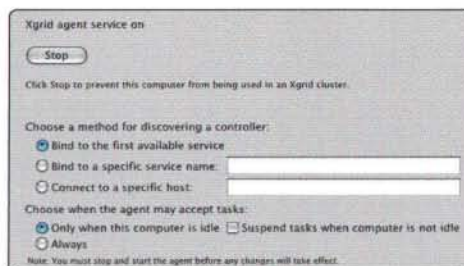
Agent Any Mac that participates in a cluster, either as a dedicated node or—like our own intern, Noah—a part-time agent, which donates spare processor cycles as they become available.

Controller This Mac accepts and authenticates jobs from a client, and then distributes the tasks to the cluster. You must have at least one controller in your cluster.

Client Any Mac with the Xgrid application installed is a client, even if you don't enable it as an agent or controller. Any client can submit jobs to a controller on the local subnet.

4 Assimilate the Agents

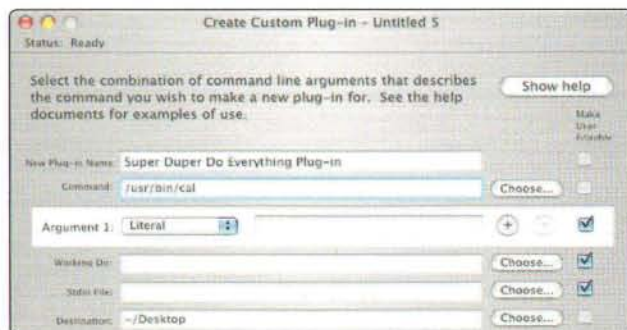
To get all your Macs to work together, open System Preferences on any of your Macs, click Xgrid to open its preferences panel, and click the Agent tab. For our cluster, all of our Macs operate as agents, which basically means that each is a member of the computing team. We assigned one Mac as the controller, which divvies up tasks among the agents and also acts as an agent. Therefore, leave everything in this panel at the default settings. If you eschew passwords on your network like we do on ours, click the Agent Security tab and uncheck the Require Controller To Provide Password box. Then click the Agent tab again and press the Start button to rev it up. Repeat this step on the rest of your Macs in the cluster.



With the exception of disabling password access, we left our Xgrid preference settings at the defaults.

6 Get a Job

You've got a controller, you've got a team of agents, you're good to go. All you need to do is submit a job to the controller, and it'll delegate the task to the cluster. To see your new supercomputer in action, launch the Xgrid app on any of your Macs; in the resulting dialog, select your controller Mac's name from the Service pop-up menu (if you never gave your Mac a computer name, it'll show up as *user name's Computer* by default) and click Connect. In the window that appears, pick a Job Type and click OK to start computing. As we said in step 1, Mandelbrot is the most gratifying to the average human, so select this job if you don't have any particular scientific formulas to crunch. If you're a command-line jockey, go nuts with the Create Custom Plug-in job—Xgrid even includes a plug-in development kit with the download.



If you're a savvy Unix geek, select the Create Custom Plug-in job to write your own plug-ins.



Niko Coucouvanis wishes it were this easy to borrow spare cycles from intern Noah Tsuisui's youthful and vigorous brain.

Make Your Own Apple Loops

TRICKY

by Kris Fong

WHAT YOU NEED

Apple GarageBand (\$49 as part of iLife '04, www.apple.com)

AppleLoops SDK 1.1 or later (free, <http://developer.apple.com/sdk/#AppleLoops>)

When it comes to Apple Loops, we're greedy. We installed GarageBand Jam Pack (\$99, www.apple.com) and snagged every free Apple Loop we could find on the Web. Unfortunately, there's a good chance we'll hear songs featuring our favorite loops from other GarageBanders—it's like showing up at a party and seeing someone else wearing your same outfit. If you truly want to be an individual, create your own loops that you can pitch- and beat-match. You

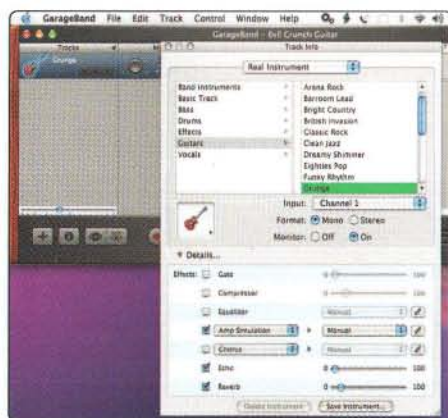


Third-party Apple Loops are nice, but if you strive for uniqueness in your music, create your own loops for GarageBand.

can loop a guitar riff, a harmonica blast, or even your dog's barking. Here's how.

1 Target Your Source

Fire up GarageBand and create a New Project; in the resulting dialog, give the project a descriptive name (this becomes your loop's name), choose whatever other settings you want, and click Create. To make a Real Instrument loop, plug in a mic or instrument, click the add button (plus-sign icon) to create a new track, click the Real Instrument tab in the resulting dialog, and select your instrument from the list or choose Basic Track to record without effects. To create a Software Instrument loop, plug in a USB music keyboard or other MIDI controller, or press Command-K to use the onscreen keyboard. Then create a new track, click the Software Instrument tab, and select your desired sound. If you want to hotrod an existing loop and save it as a new one, click the button with the eye to display the Loops browser, select any loop, and drag it into the timeline—then jump to step 3.



We chose the Grunge guitar setting to give our riff some chunky crunch.

2 Record a Snippet

If you're recording live audio or a MIDI software instrument, press Command-U to enable the Metronome, which directs the timing using one click per beat. Select Count In from the Control menu to get a one-measure heads-up before recording starts. Record a 2-, 4-, or 8-measure segment; in beat terms, this equates to 8, 16, or 32 beats, respectively, for a song in 4/4 time—the default. When you're ready, click the record button (red circle) or press R, wait for the count-in, play your part in time with the metronome, and press the spacebar to stop recording when you're done. Review your work, and if it doesn't meet your expectations, delete the region and try again.



To record a real audio or software instrument part, just click the record button and go.

3 Edit Your Loop

If you recorded a MIDI riff or chose a Software Instrument loop to modify, double-click the region to edit individual notes in the editor. Change pitch by dragging a note (represented by a bar) up or down. Add notes by holding down Command and clicking in the editor grid. Modify a note's length by dragging its right end to lengthen or shorten it. Alter a note's timing by dragging it left or right. For Real Instrument parts, your region will have a trailing end (unless you have a trigger-finger on stop), so do some cutting. Move the playhead to the end of the



intended last measure, press Command-T to split the region, select the end chunk, and press Delete.

We replayed our first chord before we stopped recording to prevent premature cut-off—we can now get rid of it.

4 Check, Finesse, then Mix

Listen to how your audio sounds when looped. Click the cycle button (icon with two chasing arrows), click and drag in the time ruler above your region to draw a yellow selection bar that spans the entire loop, and click the play button to hear it loop over and over. If you want to add or edit effects, click the *i* button to display the Track Info dialog, click the Details disclosure triangle to view the effects, and go nuts. Once your region sounds good as it loops, select Export To iTunes from the File menu to create an AIFF file.

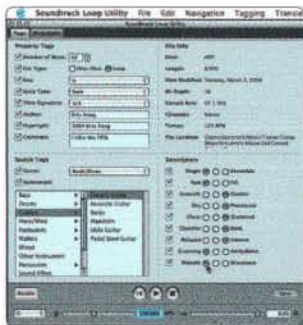


When you cycle your region, listen carefully—you shouldn't hear a gap or glitch where the region loops.

5 Set Attributes

While you can freely drag your new AIFF file into any GarageBand project and extend it to loop multiple times, you can't store it in the Loops browser or, in the case of real audio, alter the pitch and tempo as you would with Apple-supplied Real Instrument loops. So fire up Soundtrack Loop Utility (Applications > Utilities), which is part of the AppleLoops SDK installation. In the resulting dialog, navigate to and select your new AIFF file (it's in your iTunes Music folder), and click Open. In the interface, click the Tags tab to display all the attributes and cataloging choices. For File Type, select Loop. Then select the other info as it

corresponds to your audio file (such as Number Of Beats, Key, Genre, Instrument, and various Descriptors) to tag the pitch and tempo, and create relevant search tags.



Fill out all the categorical info about your audio snippet to tag the pitch and tempo, and make searching for it easier.

6 Tackle Transients

Click the Transients tab to see your audio wave divided into *transient divisions* that GarageBand uses to time-stretch or -compress your loop to match the key and tempo of a project. Although the default 1/16 Notes setting usually sounds good, we recommend testing before saving your loop—the placement of transients can affect how your loop sounds at different tempos. Press the play button and use the tempo slider at the window's bottom to speed up or slow down the tempo. If your loop sounds fine at various tempos, click Save. If things sound odd—for example, notes are missing or tones are

warbly—try adjusting the Sensitivity slider or choosing a different note value from the Transient Division pop-up menu. Once things sound good, click Save.



Once you save your loop, feel free to mess around with different pitches and tempos using the controls at the bottom of the window.

7 Test Your Loop in GarageBand

Now add your masterpiece to GarageBand's collection; launch GarageBand and click the button with the eye to display the Loops browser. Then grab your newly tagged AIFF file (still in your iTunes Music folder), and toss it into the Loops browser's right side. GarageBand imports and indexes the file, which may take a while. When the progress bar disappears, search for your loop using the browser buttons, drag your loop into the timeline, and enjoy.



Once you add your new loop to GarageBand, find it in the Loops browser by clicking any of the category buttons you set.



Kris Fong is too busy making loops to fill this space. Kris Fong is too busy making loops to fill this space. Kris Fong is too busy making loops to fill this space. Kris Fong is too loopy...

Automate eBay Transactions with AppleScript

TRICKY

by Jonathon Williams

WHAT YOU NEED

Mac OS 10.2 or later (\$129, www.apple.com)

Script Editor (part of the Mac OS)

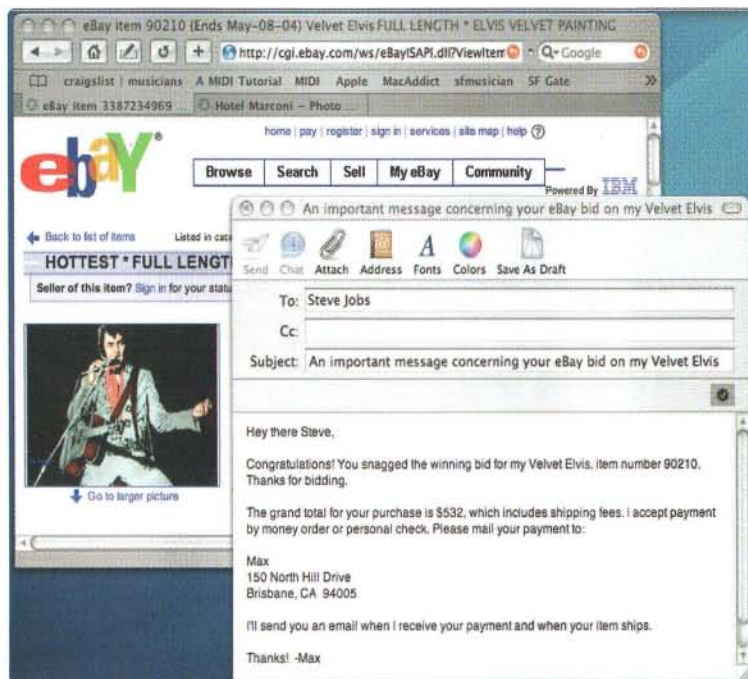
Mail (part of the Mac OS)

Microsoft Office v. X (\$399, www.microsoft.com)

It's not spam—it's eBay. If you've sold anything on the gargantuan mother of all auction sites, you know how much email comes flooding into your in-box when you've got something on the auction block. Listing confirmations, questions from prospective buyers, end-of-auction notices—the list goes on. But the worst part is dealing with all the correspondence to your buyer after a sale, such as payment instructions, payment-received notices, and shipping confirmations. If you sell frequently, keeping track of everything can be a tangled, time-consuming mess.

We can help.

Here, we show you how to generate specific emails to your buyers automatically with AppleScript; you don't have to type a single email—you don't even have to click the Send button. Though we've customized our script for Microsoft Excel and Apple Mail, you can modify it to work with other scriptable email and spreadsheet programs, such as Microsoft Entourage and AppleWorks. However, you will need to change some syntax (select



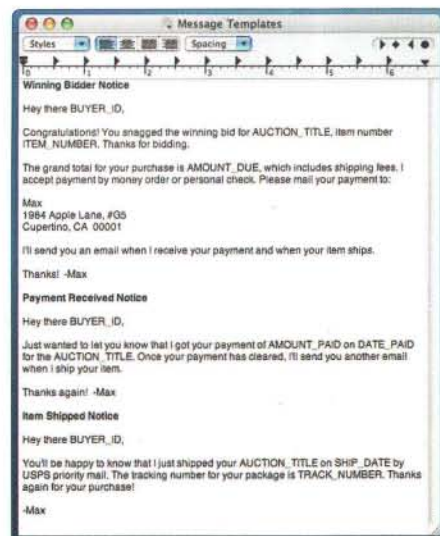
eBay sellers, say good-bye to losing countless hours in email exchanges. We've got a script that'll take care of your correspondence automatically.

Open Dictionary from Script Editor's File menu to find commands for your specific app). And, of course, if eBay isn't your thing, you can apply what you learn here and automate emails to your clients, customers, and anyone else you include in your spreadsheet.

1 Form Some Letters

First, compose three form-letter email messages to use as templates—a winning-bidder notice, a payment-received notice, and a shipping notice. Fire up a favorite text editor, such as TextEdit, and compose all messages in one document—be as clever or as brief as you want. Within each message, insert placeholders (in all caps) where the variable information will go—the buyer's name (*BUYER_ID*), your auction title (*AUCTION_TITLE*), the amount due (*AMOUNT_DUE*), and so forth. Check out our screenshot and use exactly the same placeholder names in your own templates, but feel free to rearrange their order and reword the text to suit your vernacular. AppleScript will replace these placeholders with the correct data once you've completed the script. Save the file when you're finished.

Though AppleScript is happy to send email, you have to tell it what to say. Feel free to reword our text, but keep the placeholder names the same.



2 Whip Up a Spreadsheet

Launch Excel and create a new document. Because the final scripts will expect to find each bit of info in a specific location, set up your spreadsheet exactly like ours (see below). Copy both the column heads and the row of auction test data. Just change one thing: In the Buyer Email field, enter your own email address—this will be important

when you test your scripts later. If you're already using Excel to track eBay sales, set up a separate spreadsheet for now, using our example—after you test your scripts, you can modify them to work with your existing spreadsheet. You want to make sure everything's working before you set the scripts loose on a real document. When you're done, save your spreadsheet.

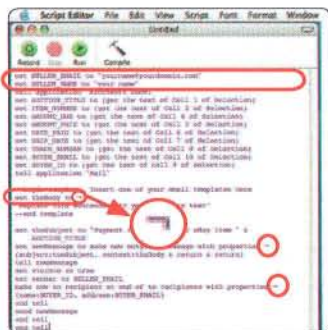
	A	B	C	D	E	F	G	H	I	J
	Auction Title	Item Number	Date Sold	Amount Due	Amount Paid	Date Paid	Ship Date	Tracking Number	Buyer ID	Buyer Email
2	Pair of Green Fuzzy Dice	1234567	5/1	\$16.50	\$16.50	5/5	5/8	1234 1234 1234 1234	Homer	yourname@yourdomain.com

Copy all this text exactly as you see it here into your own spreadsheet. You'll use the dummy text in row 2 for testing purposes.

3 Script Away

Launch Script Editor (Applications > AppleScript) to open a new script window. To generate the messages, you need three scripts, all identical except for the section set apart by beginning and ending comment lines (the sentences preceded by double dashes). Use these lines when you want to flag a code section for your eyeballs only—AppleScript ignores them. Start with the winning bidder script. Copy the script to your editor window exactly as it appears in our screenshot. If you're feeling lazy, find the file named *Script Template for eBay.txt* on the Disc, and copy and paste the code into your Script Editor window. Enter your own email and name (between quotes) in the first two lines, respectively. Type the continuation character that follows `set theBody to` by pressing Option-Return; this character tells AppleScript to follow the command past the line break. Repeat for the two other lines as indicated.

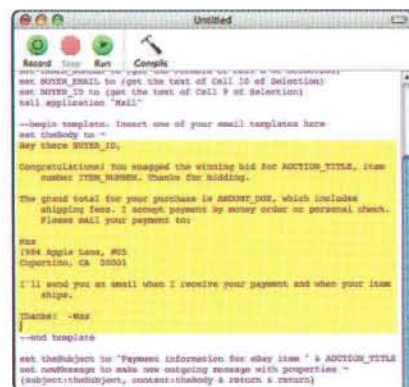
Thank gawd for copy and paste—just swap in your own name and email address.



4 Add Email Text

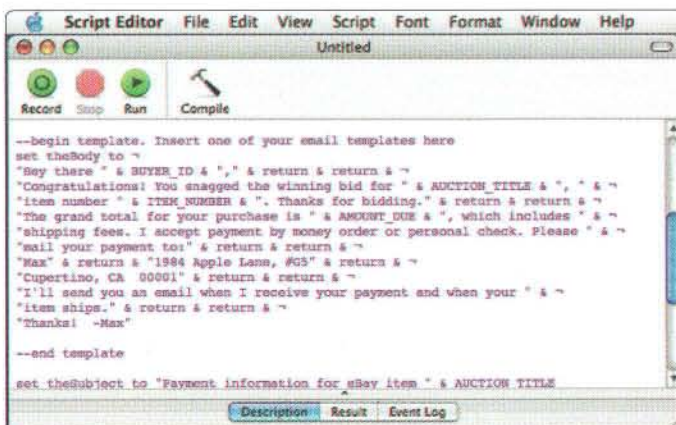
The section sandwiched between the comment lines is where you need to place each of your three email messages—one message for each script. Open your email messages template file, copy the Winning Bidder Notice text, go back to the script window, and paste the text over the line "Replace this sentence with your template text." (Highlight the entire sentence, including quotes, in the editor window and then Command-V to paste the message over it.) This is the only section you need to change when you compose the other two scripts for payment received and shipping confirmations.

Replace the placeholder sentence in the script with one of your email messages—you'll replace this text two more times with the remaining messages to get three scripts.



5 Futz with Formatting

Now comes the nitpicky part. You need to add a few formatting commands to get AppleScript to compile the script and print your email message correctly. You must enclose all the literal text in your message (including punctuation) in double quotation marks, but leave the variable items—the placeholders in all caps—outside the quotes. Type `return` in the text to create a line break, which makes subsequent text start on the next line. Type `return & return` to skip a line. To bridge everything together, type an ampersand (&) between every quoted section, variable, and return command. To create a line break within your script, type a continuation character to retain the text flow (again, that's Option-Return). Use our screenshot as an example, and doctor your script in the same fashion.



Make note of our formatting commands here; you need to apply the same principles to your own script for it to work.

6 Save the Script

Proofread your script, correct any typos, and make sure your formatting commands are sound (you should see plenty of ampersands and quote marks). When everything looks right, select **Save As** from the **File** menu. In the resulting dialog, select **Application** from the **File Format** pop-up menu, uncheck the **Startup Screen** box, name the script *Winning Bidder* (or the like), and click **Save**. If AppleScript finds a syntax error, it'll highlight the problem area for your contemplation. Fix it, and then save again. AppleScript formats your plain-text script into a more readable document if it's all good.



If you dotted your i's and crossed your t's properly, your script will be beautifully formatted once you save it.

8 Send in the Clones

Now that your first script is perfect, clone it twice to create the other two scripts. Select the script icon and press **Command-D** twice. Rename the copies *Payment Received* and *Shipping Confirmation*. Then open the *Payment Received* script in **Script Editor**, open the email messages template file in **TextEdit**, copy the *Payment Received* email text, and paste it in over the *Winning Bidder* text between the comment lines. Doctor the text in the same formatting fashion you did in step 5. If you want, you can change the subject-line text; in the line below the *--end template* comment line, type in something like *Received your payment for eBay item* to replace the text in between the double quotes. Then save the file, and repeat the same testing that you did in step 7 until it's perfect. Repeat for the *Shipping Confirmation* script.



For our *Shipping Confirmation* script, we formatted the appropriate email message and then altered the text of the email's **Subject** field.

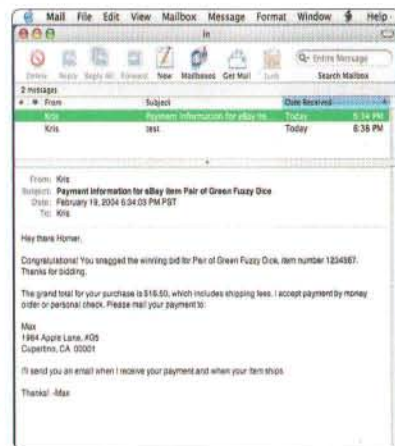
Johnathon Williams ran an eBay business into the ground before realizing that his true talents lay in bringing AppleScript to the masses.

7 Test, Debug, and Improve

Now for the fun part—test-drive your work. Open your spreadsheet and click the numeral 2 of row 2 to select the entire row (the dummy auction data). Then cross your fingers and double-click your *Winning Bidder* script to run it. If you get a script error message, don't worry; we seldom get scripts to work right on the first try, either. You've most likely made a typo. Open the script in **Script Editor** and check it line by line. Make sure you spelled application and placeholder names correctly and didn't leave anything out. AppleScript is case sensitive, so check your case too. If everything works correctly, **Mail** will launch and send you an email; you should have a new message in your mailbox in a few seconds.

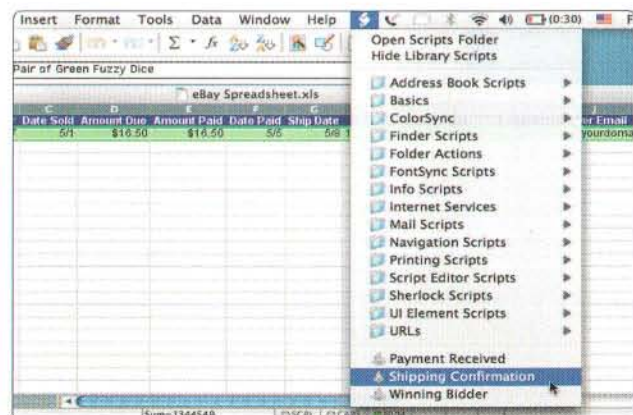
Study the message; it should contain all the test auction info. If the formatting looks strange, go back and edit the message section of the script until it looks right.

If your script is perfect, it'll send you an email that contains all the dummy text from your spreadsheet.



9 Activate the Script Menu

Now that your scripts are up and running, you can make their activation easier. Double-click the **Install Script Menu** icon (**Applications > AppleScript**) to add a script menu to your menubar (it appears as a black script icon). Click the script to view Apple's preinstalled scripts in its drop-down menu. To add your new eBay scripts to this menu, create a new folder called **Scripts** in your user Library folder (**Users > user name > Library**) and drop all three scripts into it. From now on, you can activate your scripts by highlighting the appropriate auction row in your spreadsheet and selecting the target script from the drop-down menu.



Once you install the **Script Menu**, all your scripts are a mere click away.

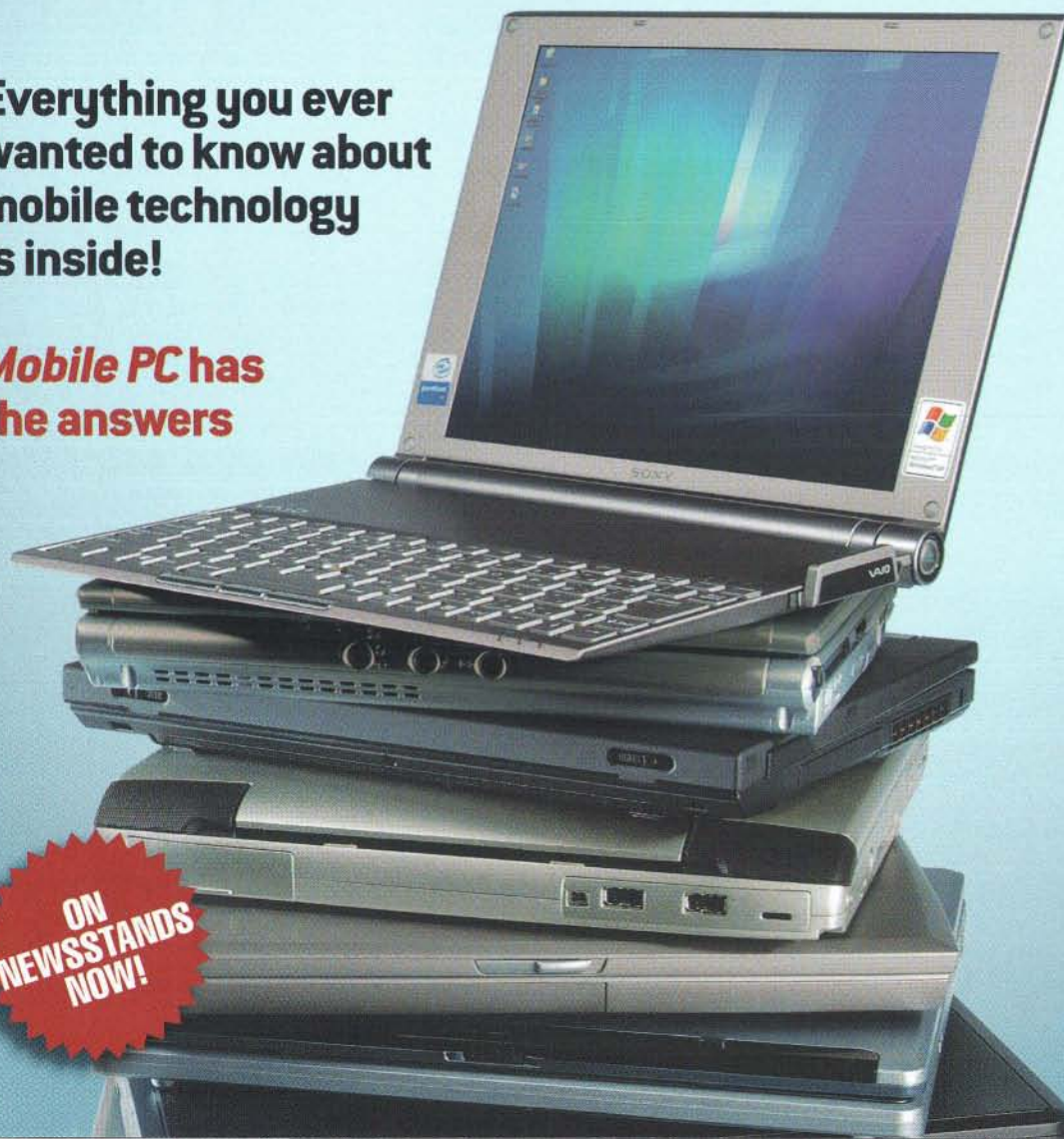
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Asus MyPal A620BT

A FAST AND WELL-CONNECTED FRIEND

Geeks and gearheads have a passion for high-performance machines, tweaking their gadgets in every way possible to squeeze out those extra nanoseconds. The folks at Asus, known for making excellent PC motherboards, share that passion and released the MyPal A620BT PDA to prove it. With its sizzling performance, bright screen, Bluetooth, and long battery life, you may want to make the MyPal your pal, too.

A quick look at the MyPal says nothing of the outstanding performer within. Its plastic casing has the familiar brushed-aluminum look of many Pocket PCs, but there are a few differences. The record button is on the top rather than the side, which makes it less likely to be accidentally punched



BEST FEATURE Record-breaking performance

WORST FEATURE CompactFlash slot instead of SD

as you pull the device from your pocket. The other big difference is the CompactFlash slot. Newer Secure Digital slots are now much more

common and arguably better than CF, so it's surprising that Asus has gone with the older media type. The slot has a removable panel, so it can accommodate larger CF add-in modules.

The A620BT is thin and light, at just 4.9 x 3.2 x 0.5 inches and 5 ounces. Asus claims that it's the smallest and lightest PDA with a CF slot, but we found that it weighed the same as an HP iPaq h2200, which is smaller but thicker. At any rate, the Asus is compact and pocketable — particularly for a CF

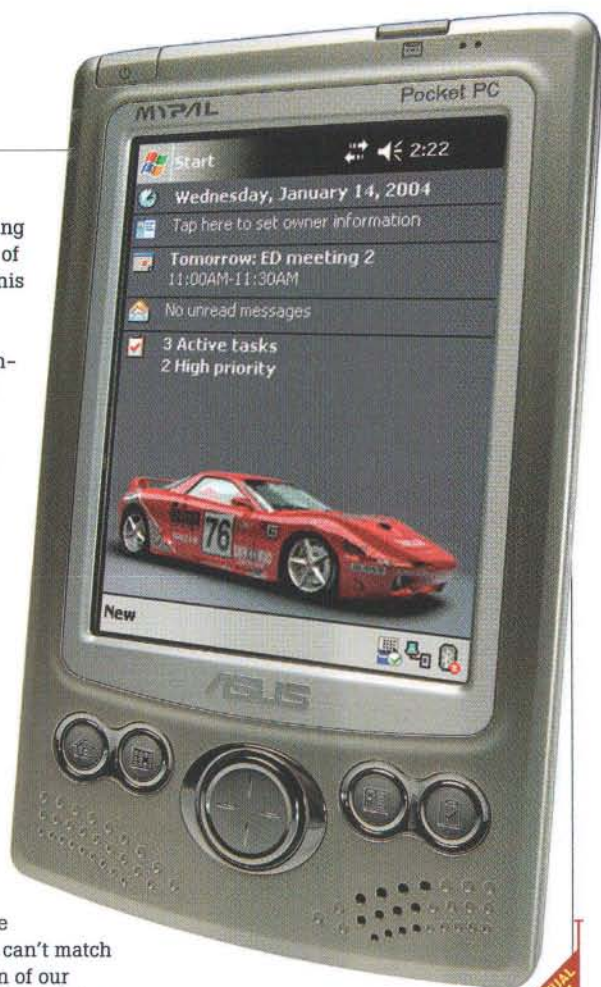
handheld. So if you're looking to maintain your collection of CF cards and peripherals, this is the PDA for you.

In most respects, the MyPal is a midrange to high-end Pocket PC. Its 400MHz Intel XScale PXA255 processor is near the top of the line, but its 64MB of RAM is average. However, it does have about 32MB of free nonvolatile flash memory for backing up your contacts database and other important data. While it can't boast high-speed Wi-Fi, the A620BT does have Bluetooth to differentiate it from lowlier Pocket PCs.

The MyPal is a true friend to the eyes and ears. The 320 x 240-pixel, transfective TFT offers up the standard 65,536 colors, but it is quite bright and high contrast. It can't match the higher resolution screen of our favorite, the Toshiba e805, but it is just as bright and easy to read. And though the integrated speaker is weak, the unit sounds great with headphones. At its maximum volume, music verges on painful, just as it should.

Asus ships two software discs with the device, but there's not really much on them. One has the typical set of Outlook 2002 and ActiveSync 3.7 and links to AvantGo. The other includes Pocket PC themes, some free software, and game downloads. Of these, the best are IA Presenter, IA Album, and IA Zip (a WinZip-compatible compression utility). The most memorable game is *Dung Cleaner*, a *Lode-Runner* clone in which you dig holes to evade your pursuers and collect, well, dung.

Showing off in our performance tests, the MyPal systematically bludgeoned the competition in our benchmark tests. With a record-setting Spb Benchmark score of 1,691, the Asus was yards ahead of its closest competitor, the HP iPaq h4150. Battery life was also excellent,



ACTUAL SIZE

though not the best we've seen. The unit played video for four hours and 20 minutes, and it lasted for another hour and 15 minutes after the video stopped. But that's still better than most Palm devices and many Pocket PCs.

The MyPal A620BT may not have the most extensive spec set in the world, but in the end it's all about the performance. Asus could have made this product wholly irresistible had it included an SD slot and Wi-Fi, but it's still a lot of PDA for \$399. —Roger Hibbert

Asus MyPal A620BT \$399

Weight: 5 ounces **Size:** 4.9 x 3.2 x 0.5 inches

Specs: 400MHz XScale processor; 64MB of RAM; 64MB of ROM; 3.5-inch 320 x 240-pixel TFT; Bluetooth; CF slot; lithium-ion battery; Windows Mobile 2003

www.asus.com

PERFORMANCE

	WORST		BEST
Spb Benchmark	708	1,691	1,691
Battery life (hours)	2:16	5:35	12:07



A removable cover **1** offers easy access to the CompactFlash slot **2**.

Toshiba Satellite P15-S479

THE PORTABLE HOME THEATER

The Toshiba Satellite P25 is a 10-pound hulk of a computer, a 17-inch widescreen that impresses with its thoughtful design, modern styling, and serious under-the-hood specs. Think of the P15 as the junior-varsity version.

Weighing in at 8 pounds on the nose, the P15's only noticeable difference is a slightly smaller screen, at 15.4 inches. The other features of the P25 are there, only less space is wasted on either

side of the keyboard. All things considered, we'd rather have the slightly more compact version, which costs up to \$1,000 less.

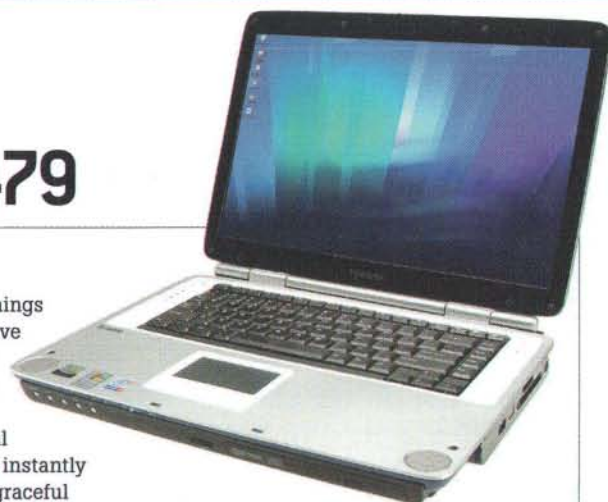
The Satellite P15 is a real computing showpiece that instantly gets people talking. More graceful curves have never been seen on a notebook computer, and the P15's booming speakers, gorgeous screen, and impressive keyboard all back up its thoughtful design. Under the hood, the Satellite is no slouch; while gaming performance could stand to be improved, the obvious tradeoff for an older Nvidia graphics card was made to keep the price down (hitting an irresistible \$1,799).

More than just a notebook, the P15 is also a Windows Media Center PC, with a built-in TV tuner and remote control. As with all Media Center machines, this

notebook doubles as a TiVo-style video recorder — and believe us, video looks far better on the Toshiba's screen than it does on most traditional CRTs.

With two hours and 42 minutes of battery life, daredevils might even take a stab at lugging the P15 along on a trip. You may not be comfortable trying to open the notebook in coach, but if nothing else, you're sure to impress the pants off the guy in the seat next to you.

—Christopher Null



PERFORMANCE

	WORST		BEST
Sysmark	78	179	218
Unreal	9.6	90.7	211.1
Battery	1:02	2:42	5:21

Toshiba Satellite P15-S479 \$1,799

Weight: 8.0 pounds Size: 13 x 10.8 x 1.2 inches

Specs: 2.8GHz Pentium 4; 64MB Nvidia GeForce FX Go5200; 512MB of RAM; 15.4-inch TFT; 60GB hard drive; CD-RW/DVD-RW/DVD-RAM drive; SD slot; 802.11g; Windows XP Media Center

www.toshiba.com



BEST FEATURE

Outstanding audio and video experience

WORST FEATURE

Gaming performance a little weak

Motorola i730

BIG BROTHER'S FAVORITE CELL PHONE

The world has waited years for the development of e911, the location-based emergency service that promises to save lives through the cellular airwaves. And as it turns out, businesses may

get a little boost from the service, too. Offered by Nextel, Motorola's i730 iDEN phone features GPS tracking that may soon allow your company to

pinpoint your position to within 50 feet.

Nextel has offered walkie-talkie phones for years, and the i730 is the company's most advanced handset yet. With a 1.7-inch, 65,000-color screen and a large keypad, navigating the i730's menus is simpler than on most handsets. This is good, because the interface is more complicated than many conventional phones. Booting takes a

good 20 seconds, and shutting it down takes a dismaying 17 seconds.

Fortunately, the i730 works much more quickly during actual use. Establishing a walkie-talkie connection takes only a few seconds, even across thousands of miles. Data connections through the WAP browser are peppy, and the phone supports AOL mail and AOL Instant Messenger so that you can keep in touch with your buddies on the road.

Being a walkie-talkie phone, the i730 has an excellent speakerphone mode that sounded great — on both sides of the conversation — in our tests. It also supports voice-activated dialing and doubles as a voice recorder for logging short memos or capturing important conversations. But watch out:

with a talk time of 3 hours and 22 minutes, all these extra features may shut you down prematurely.

As difficult as it may be to convince your flight attendants, the i730 features a handy airplane mode that shuts down its wireless features while letting you access important things such as date book entries, memos, contact information, and games. With or without GPS tracking, which can be disabled for privacy, the i730 raises the bar for Nextel handsets and brings all the fun and functionality of an afterhours cell phone to the long-trusted Direct Connect network Nextel made famous.

—Robert Strohmeier



BEST FEATURE Zippy push-to-talk service

WORST FEATURE

Extremely bulky for a flip phone

Motorola i730 \$299

Weight: 5.1 ounces Size: 3.6 x 2.0 x 1.1 inches

Specs: iDEN; Direct Connect; GPS; WAP; Java; speakerphone; voice dialing

www.nextel.com



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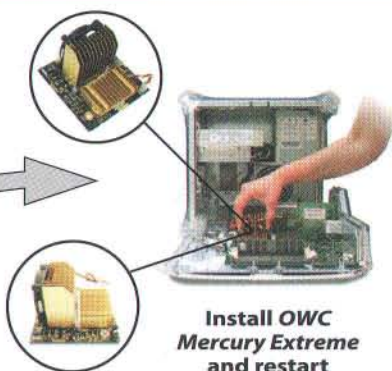
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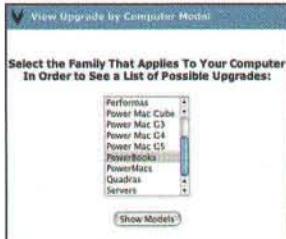


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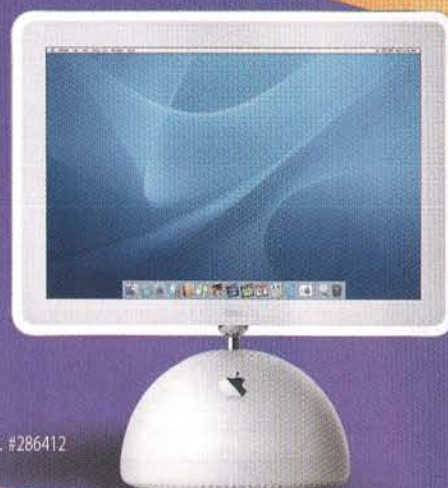
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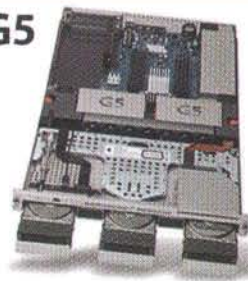


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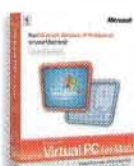


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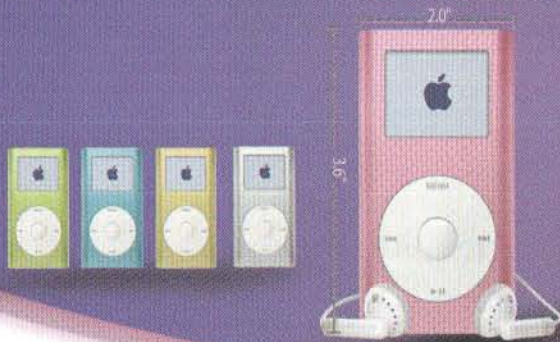
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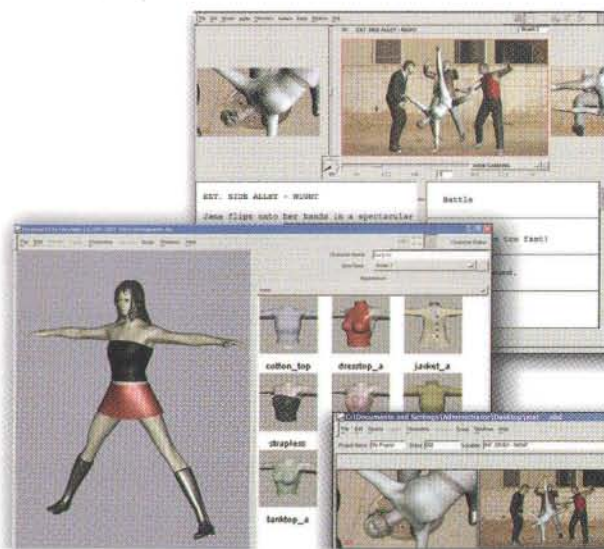
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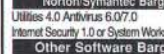
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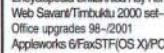
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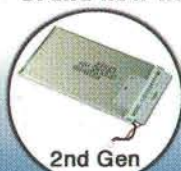
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NERDIEST JOKE EVER

A Unix user said `rm -rf *` and all was null and void.

—*Bitey The Bum*

Oh yeah, well how about this: `!!ur=0` (bang bang, you're dead). Thanks to Mary Tyler, who sent us the retort.

—*Max*

EPILOGUE

I just have to know. After all those spills in the outtakes of the staff video, "Niko's Wild Ride" (Apr/04), did the Blue-and-White Power Mac G3 that Niko was riding still boot up?—*John*

After we reinstalled its hard drive, Niko's Power Mac booted right up—we'd never harm a beautiful ol' Blue-and-White G3.—*Max*

ILLUSTRATOR VS. FREEHAND

I couldn't believe John Cruise's review of Illustrator CS (*Reviews*, Mar/04, p42). Adobe's offering may rate only solid on the *MacAddict* reviews scale, but to say it hasn't caught up with Macromedia's FreeHand MX, which lacks many of Illustrator's tools, is ridiculous. I was a dedicated FreeHand user until Illustrator's features—such as gradient mesh, overprint previews, ability to assign attributes to compound shapes, and the cavalcade of filters and effects—forced me to jump on the Adobe bandwagon. FreeHand MX, I'm sorry to say, has a long way to go before it can compare favorably with Illustrator CS.—*Scott Stoel*

We stand behind our review.

As we said, Illustrator CS is a solid app, "but overall, there's plenty of room for improvement."—*Max*

THE ROYAL EXCHANGE

With all of the cool things about Microsoft Office 2004 that I read in "Office Goes to 11," (Mar/04, p22), there is one feature that's an absolute must for me: Entourage must seamlessly connect



RECENTLY SIGHTED

Check out this in-vogue hairstyle from Mesa, Arizona. Talk about Mac on the brain.—*Troy*

to Microsoft's Exchange Server. I am a switcher from Windows to Mac; however, I may be forced to go back to Windows because my new VP lives and dies by Outlook calendars. The Office X service release that offered support for the Exchange Server requires that you have control over the MS Exchange Server. Unfortunately, my hands are tied in this area by an IS guy, whose favorite comment to me is, "Why don't you just use Windows?"—*Brian*

While Microsoft has not made any announcements about improved Exchange support in Microsoft Office 2004, the smart money says you'll be able to tell your IS guy to stick it.—*Max*

SUPPORT THE ARTS

I was really blown away with the music of Jim's Big Ego on Disc 91 (Mar/04). Is there a way I can pirate the song into iTunes?—*Michael Berry*
Michael, Michael, Michael... the CD is \$10 and a single is \$0.99 at Jim's Big E-Shop



My dog Sheena borrows my PowerBook to check out the latest canine happenings around Atlanta.

—*Robert Hamilton*

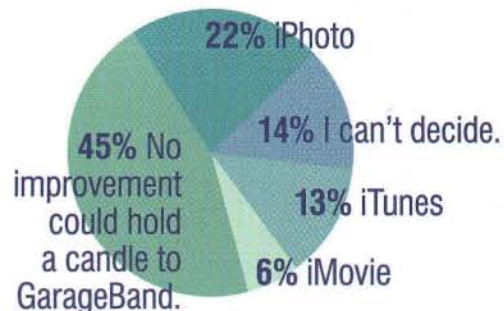
Survey Says

Here are the results of our February 2004 survey. Check out www.macaddict.com each month for a new online poll.

Did you win a free song in the Pepsi/iTunes contest?



Which iLife '04 application has most improved?



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VIVA LOS DOTS

I read with some amusement your editor's note, "Time Marches On" (Editors' Page, Apr/04, p6), in which you talked about Kodak dropping their 35mm cameras here in the U.S. and wistfully reminisced about all the things you miss. However, your comment that you miss "...those candy dots that came on rolls of white paper that—Narasu tells me—were banned because of an urban myth..." is wrong! Stores here in Kansas City still sell those dots, so someone is making them, obviously.—Matt Hydeman
Narasu is being tarred and dotted as we speak. Sure enough, those dots—officially called Necco Candy Buttons—are still available at sweets shops such as Candy Direct (www.candydirect.com).—Max

IMAGE COURTESY OF STEPHEN TRAINO



Necco Candy Buttons are alive and well.

HUH?

Are any of the staff saved?
—Charles Fisher
From what?—Max

HOW LOW CAN YOU GO?

I am pleased to say that the operating temperature range for the iPod (Ask Us, Mar/04, p64) you reported is off—significantly off! I am stationed near North Pole, Alaska, and I use my iPod

daily at much more extreme temperatures with no ill effects. In my experience, the iPod works fine down to 0° F on battery alone. Below that, the iPod will continue to work down to -25° F, but it has to be plugged in and the LCD display becomes unreadable.—Tim K

We thought we saw Santa up there rocking out to Ice Cube, Ice T, and Vanilla Ice.—Max

THE IDEAL IPOD FOR DJS

Your story, "Party with your Mac" (Mar/04, p28), which described how to use an iPod as a DJ tool was interesting; however, your enthusiasm for Macs sometimes biases your articles. I have been a mobile DJ for 30 years and have recently purchased an iPod to use when I need background music in a side room, but using it as a tool for an evening of dancing is a different story. The controls are much too sensitive for practical DJ use, the buttons should give you sensory feedback when pushed, and the display needs to be larger. Plus, DJs require instant starts for songs and prefer the option to stop play at the end of a song. If Apple made these adjustments, the iPod could be a great DJ tool.—Woody Sellers



We are teaching our kitten to be a loyal Mac addict but sometimes she falls asleep on the job.—Linda Natho

WIN!

WiebeTech's 120GB FireWire 800 drive

Win WiebeTech's 7,200-rpm, 120GB Fire800 (\$269.95, www.wiebetech.com) drive with FireWire 800, FireWire 400, and USB 2.0 ports. Just write the best caption for the picture below and send it in.

Only one entry per contestant.

Entry Form



Write a caption for this picture.

CONTESTANT INFORMATION

Full Name: _____

Address: _____

City: _____

State: _____

Zip: _____

Email or telephone: _____

Send snail-mail entries to: WiebeTech Contest

MacAddict magazine, 150 North Hill Dr., Brisbane, CA 94005.

Send email entries to: contest@macaddict.com with the subject line WiebeTech Contest.

Deadline for entry: June 30, 2004.

Contest results will appear in our Oct/04 issue.

Contest Rules The judges will be MacAddict editors and will base their decision on 33 percent humor, 33 percent originality, and 33 percent creativity. All entries must be received no later than June 30, 2004, with the winner announced around October 2004. By entering this contest, you agree that Future Network USA may use your name, likeness, and Web site for promotional purposes without further payment. All prizes will be awarded, and no minimum number of entries is required. Prizes won by minors will be awarded to their parents or legal guardians. Future Network USA is not responsible for damages or expenses the winners might incur as a result of this contest or the receipt of a prize, and winners are responsible for income taxes based on the value of the prize received. A list of winners may also be obtained by sending a stamped, self-addressed envelope to Future Network USA c/o MacAddict Contest, 150 North Hill Dr., Brisbane, CA 94005. This contest is limited to residents of the United States. No purchase necessary, void in Arizona, Maryland, Vermont, Puerto Rico, and where prohibited by law.

Winner!

Congratulations to Alexandra Zulueta, who won Belkin's Voice Recorder for iPod (\$59.99, www.belkin.com), Media Reader for iPod (\$109.99), and Leather Flip Case (\$29.99).



Don't shake me because I'm beautiful.

PHOTOGRAPH COURTESY OF WIEBETECH

DSMMD

Diagnostic and Statistical Manual of Mental Disorders: Mac Edition

The American Psychiatric Association (APA) publishes the *Diagnostic and Statistical Manual of Mental Disorders*, the standard desk reference for psychiatrists worldwide. Imagine our horror (and glee) to learn that a secret committee of the APA is working on a Mac addendum to the book's most recent edition. Our deep throat managed to procure a preview copy—here's a sampling the lurid disorders described within.



macs•och•ism

: a perversion characterized by deriving pleasure from running Mac OS X and multiple applications on a 300MHz Power Mac G3 with 128MB of RAM.

mac•hau•sen syn•drome by prox•y

: a condition characterized by causing damage to a Mac in order to experience pleasure in repairing it. Symptoms include running Symantec's Norton SystemWorks continuously, whether or not its use is required.

app•o•rex•ia ner•vo•sa

: a disorder marked by the pathological fear of hard-drive bloat, leading to avoidance of installing new software.

bu•li•mac•ia ner•vo•sa

: a disorder marked by compulsive installation of an excessive amount of software, followed by a pathological fear of hard-drive bloat and an immediate purging of software.

hy•po•chon•dri•mac•ia

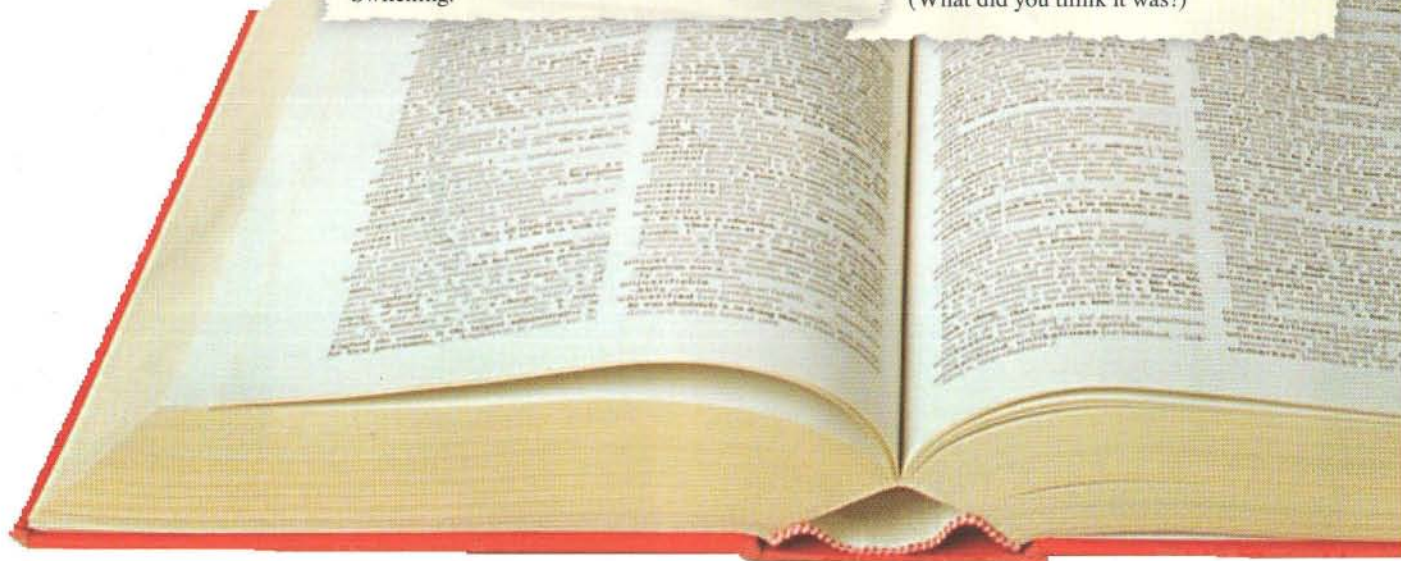
: abnormal fear of error messages as harbingers of impending disaster.

mac schizo•phre•nia

: a psychotic disorder characterized by having large numbers of user accounts, each with a unique look and feel. Advanced-stage mac schizophrenia is marked by frantic and compulsive use of Fast User Switching.

mac•ro•phil•ia

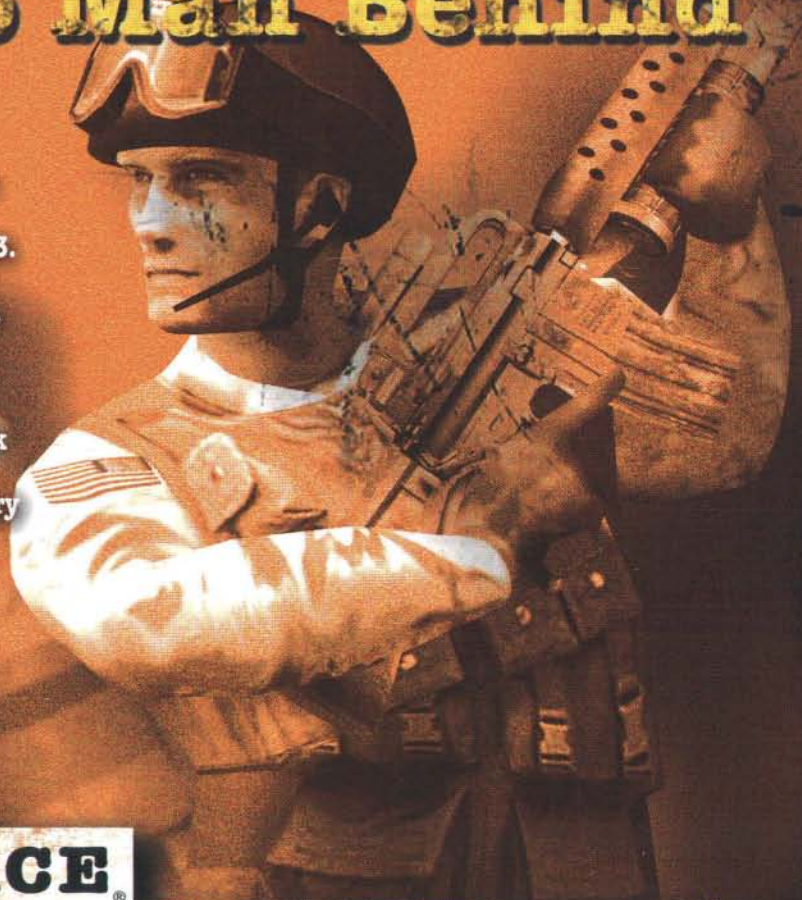
: a condition characterized by an insatiable desire to write Excel macros. (What did you think it was?)



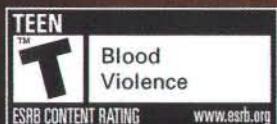
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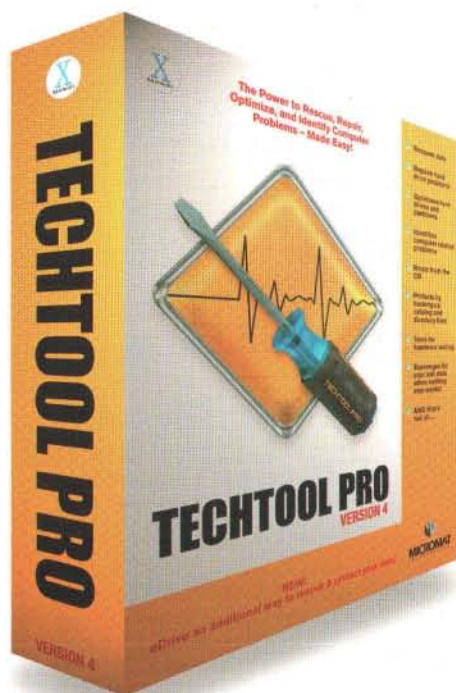


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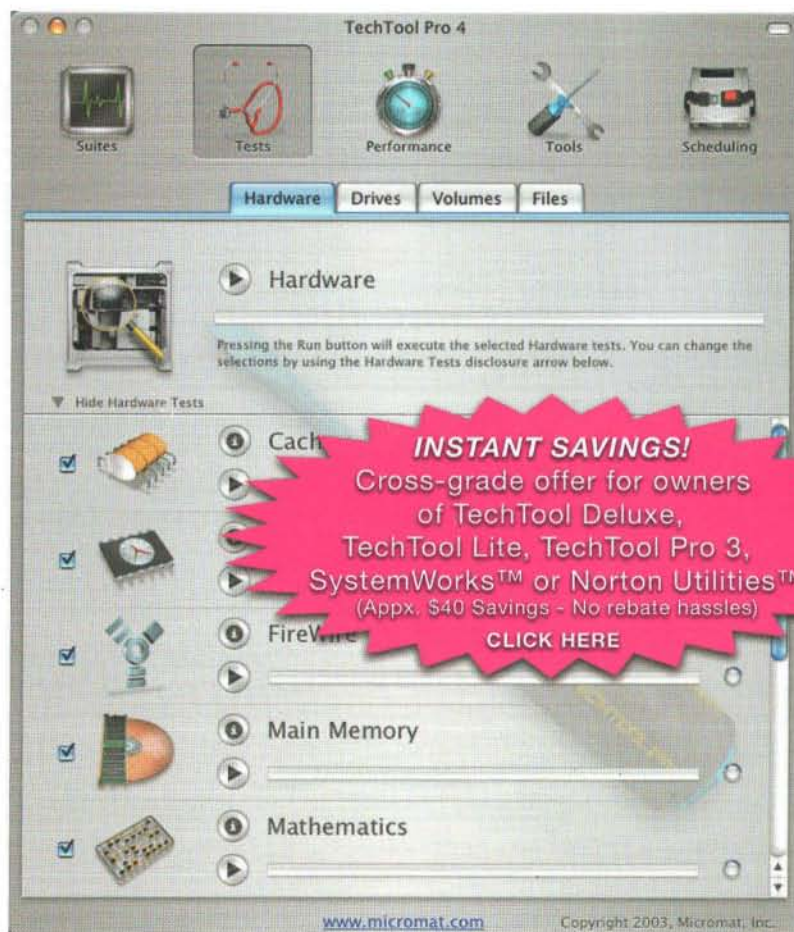
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